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ABSTRACT

This document describes the efforts of program administrators to implement an organic curriculum in the Willingboro, New Jersey, public schools. Major activities included inservice programs to train teachers and administrators to write behavioral objectives, and implementation and modification of learning packages. Organic curriculum is a learner- rather than a teacher-centered course of study utilizing learning packages specifying behavioral objectives. Appendixes present a variety of project related materials. (RA)

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Final Report

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COORDINATION OF ORGANIC CURRICULUM IN THE PUBLIC SCHOOLS OF WILLINGBORO, NEW JERSEY

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Willingboro, New Jersey 08046

March 1971

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SUMMARY

The objective pursued under this project was to create a climate for change and to institute change within the secondary schools of Willingboro. The project coordinator instituted change in curriculum in cooperation with the U. S. Office of Education, research organizations, universities, regional laboratories, the State Department of Education, and members of the ES'70 Network. A new type of secondary school curriculum has been developed utilizing behavioral objectives, individualized instruction with some integration of vocational and academic work. Other innovative approaches have involved the elementary schools, particularly the individualization of instruction through I.P.I.

Through the use of external funding and the operation of two national institutes and other inservice training on a local level, staff members and administrators in the Willingboro school system have been instructed in the development of behavioral objectives. This is an ongoing effort. Instructional modules were developed and tested in the classrooms of the junior high schools and rewritten as the flaws were noted. Continual testing and rewriting is going on.

It is significant to note that the impetus for this work was slowed considerably after the initial enthusiasm had diminished. The second institute on change-agentry developed methodology for keeping up the pace of change.

Curriculum articulation committees within workshops have helped to accelerate change through developing a better understanding of the intent and development of individualized instruction.

Recommendations for further action stem from recognition of the fact that methods and materials do not change attitudes and behaviors. Therefore, it is incumbent upon change agents to develop a climate for change before attempting the mechanics of change.

INTRODUCTION

In the beginning the Organic Curriculum addressed itself to the problem of devising and executing a program for the development of a new comprehensive secondary curriculum and organization providing:

1. An individualized education for each student.
2. Highly relevant to the adult roles which he will play.
3. Economically practical within available public resources.
4. Based on behavior and related sciences.
5. Employing suitable systems of school organization.
6. Utilizing appropriate educationally oriented technology.
7. Locally planned and directed.
8. State supervised, nationally coordinated.
9. Financed by federal, state, and local funds.
10. Designed for ultimate availability to all school systems.

Thus in May 1967 the organization was formed.

The ES'70 program required each participating district to create the position of ES'70 coordinator and appoint an individual to that position. In Willingboro the office expenses were absorbed by the school district while the coordinator's salary and expenses were funded by the U. S. Office of Education. The duties and responsibilities of the coordinator were developed by the ES'70 Executive Committee as follows:

I. Objectives

- A. Delimit general purposes of the organic curriculum, to the local school district.
- B. Utilize all available funding sources for support.
- C. Deal with a variety of complex questions which may arise from a radical remodeling of the secondary curriculum.
- D. Prepare a climate for and bring about change in the attitudes and behavior of people so that the curriculum becomes learner-centered.
- E. Develop an integrated, comprehensive curriculum, grades nine through twelve.
- F. Act as agent for communication.
- G. Evaluate each step of the program.

II. Functions - As a staff person, under the direction of the Superintendent of Schools, to:

- A. Develop an ES'70 PERT for the local district.
- B. Establish local professional steering committee.
- C. Develop appropriate staff.
 - 1. Analyze staff functions required for ES'70.
 - 2. Establish professional and sub-professional staff requirements.
 - 3. Establish non-educational staff requirements.
 - 4. Identify role differentiation of ES'70 staff from that of regular staff.

5. Establish staff qualifications, develop job descriptions or statement of staff functions.

6. Design and conduct total staff training-in-service as well as basic. Work with and get cooperation of local teacher training institutions.

7. Arrange for the assignment and use of trained staff.

8. Evaluate staff development program.

D. Develop instructional management and career guidance programs.

1. Formulate ES'70 goals for local district.

2. Define educational objectives.

3. Integrate educational objectives.

4. Specify performance objective modules, instructional.

5. Specify performance objectives for guidance programs.

6. Identify and adapt for local district, or develop, instructional modules including multimedia and C.M.I.

7. Develop guidance program for local district.

8. Test and revise instructional modules in selected school or schools.

9. Install and monitor guidance program.

10. Integrate instructional modules into the school district curriculum.

11. Evaluate total curriculum and guidance programs and tie in to ES'70 system.

E. Establish appropriate communications.

1. With State Education Department and U. S. Office of Education.
2. Within the local school district staff and community (labor organizations, industry, chambers of commerce, local government, civic organizations, P.T.A., etc.) with network schools.
3. Assist and cooperate in the design and development of the central information system.
4. Assist and cooperate in the design and development of the data processing function.

F. Analyze local school administrative requirements; design, install and evaluate administrative program for local district.

G. Determine local space and facilities requirements; procure, install and try out new facilities and evaluate.

H. Evaluate total ES'70 program within the local district.

While each ES'70 Coordinator was left with the responsibility for performing the tasks of his particular school district, some have been more effective than others in implementing change. I shall describe my activities and involvement in the ES'70 program.

METHODS

The Steering Committee was composed of local administrators, teachers, and representatives from Burlington County College (See Appendix A) and acted as a policy-making unit giving direction to the ES'70 Coordinator and receiving full information from the coordinator. (Examples of reports to the Steering Committee are in Appendix B)

The Steering Committee devised the scheme and plan of operation for the institution of the ES'70 concepts within the school system. The committee looked first at school organization and the semester offerings, and devised a program for additional offerings in the junior high school by providing three semesters. This is called the "trimester plan." Each student with the advice and counsel of the Guidance Department and the administration, therefore, has a greater choice of course offerings than under the old system. A plan for staff training was developed and members of the Steering Committee developed a training program for the writing of behavioral objectives. More on this later in this report.

It had been thought originally that one subject area would bear the full impact of the behavioral objective writing program. Mathematics was considered to be the best area and the committee attempted to develop a program in grades kindergarten through fourteen.

Burlington County College, in order to perform its function as a community agency, was very anxious to work with the Willingboro Public Schools in establishing a mathematics program in the same format as the public school. Therefore, a close working relationship evolved due to their activities on the Steering Committee which enabled the committee to plan a mathematics program K through 14.

Individually Prescribed Instruction (IPI) was the initial effort in the elementary schools. It had been thought by the committee that this introduction to a method of individualizing mathematics would be a good takeoff point. At no time was it

thought that IPI would be the last word in utilizing an individualized approach in mathematics in the elementary school, but rather it would serve as a base for training which could be evaluated and which would serve as a model to be modified for thorough implementation.

In the junior and senior high schools behavioral objectives and learning packages were outlined for mathematics with a thorough restructuring of the course offerings to provide for individualization. This work is still going on.

The Steering Committee continued its function throughout the programs' duration.

COMMUNITY ORIENTATION

The Coordinator and Assistant Coordinator of the ES'70 effort in Willingboro felt that administration and staff orientation was not enough and proceeded to orient every facet of the community that could be reached. Meetings were held with the various P.T.A.'s in the district, service clubs, church groups and other special interest groups. This effort was extraordinarily consuming in time and effort, but was extremely helpful in paving the way for the ES'70 program.

STUDENT ORIENTATION

The coordinator met with groups of students to ascertain their feelings about the present curriculum and to get some view of their hopes for the future. They agreed that the basic problem facing adults and children was the transition of the children from teenagers to adulthood. On one hand the adults, their parents, seemed more interested in the power struggles of the world, the Vietnam situation, ecology, pollution, and the economics of the country, while the youngsters were facing day-to-day problems and pressures which are overriding. In their views the youngsters considered most of their high school education as a false base for life. They complained of teaching on a "group total" basis. They felt that school discipline codes are a challenge or contest and fairly insulting to themselves. Race relations, the lack of respect for one individual to another, and what they construe as being the basic dishonesty of people loomed large in their eyes.

All of these thoughts were transmitted to the Steering Committee and the administration for consideration in developing the ES'70 concepts.

STAFF TRAINING

As mentioned above, the original thought of the Steering Committee was to develop behavioral objectives and learning packages in mathematics, K-14. However, members of the administration and staff felt that the effort should be broader. Therefore, an initial group of forty staff members using Field Tested Instructional Technology as developed by Deterline started a training program in the Spring of 1968. During this program the writing teams learned not only the basics of writing behavioral objectives but developed packaged learning materials utilizing all the media in English, foreign languages, social science, and math on the secondary level.

These were tested in the secondary schools during the fall of 1968. In addition, a training program for all department chairmen, guidance counselors, and administrators in the junior and senior high schools was written. (See Appendix C) Those included in the appendix are not the original but are updated modifications thereof. This latter program was conducted during the spring of 1969.

During the summer of 1969, the Office of Education financed a national training institute in the writing of behavioral objectives, "An Institute Program Designed to Train Vocational Education and Academic Teachers for the Development of Performance Objectives", Grant No. OEG-0-9-400538-4586 (010), Project No. 9-0538.

NOTE: Members of the ES'70 Network, through the coordinators, selected the participants in this workshop which was of three-weeks duration. The final report for this institute is available in the Office of Education. Essentially, the participants in the institute learned the mechanics of writing behavioral objectives and learning packages that are applicable to any subject-matter area. The final evaluation of this institute was favorable. During the fall of 1970 key teachers and administrators in elementary schools were introduced to the methodology of writing behavioral objectives and learning packages. This inservice program is still continuing.

A second national institute was held in Santa Fe, New Mexico for the members of the ES'70 Corporation which was concerned mainly with the use of behavioral objectives and the methodology of effecting change in school districts. This institute came into being at the request of member school districts since each had experienced considerable difficulty in providing not only the proper atmosphere for change and the vehicle for change, but the methodology of change. Again, the reader is referred to the final report of the institute, "An Institute Program Designed to Train Vocational Education and Academic Teachers for the Development of Performance Objectives", Grant No. OEG-0-9-400538-4586 (010), Project No. 9-0538.

Thousands of hours have been spent by local administrators and teachers in developing the programs, writing behavioral objectives and learning packages. This has made a considerable impact on teachers' perception of his role in the school.

PROGRAMS

The results of the inservice training and institutes are readily seen in the secondary schools. In the John F. Kennedy Senior High School, grades 10 through 12, behavioral objectives and learning packages are used in the mathematics department, foreign languages department, and the English department. The continuing inservice program is fostering the use of learning packages in other subject-matter areas including art, physical education, and driver education.

In the junior high schools all subject areas are using some learning packages ranging from a saturation low of 20% of the course offerings in packages to 100%. The latter figure is evidenced in the Science Department particularly. About half of the offerings in the English department use learning packages as well as physical education departments, with other departments slowly building their bank of learning packages and behavioral objectives. It should be borne in mind that a learning package does not stand forever - it is subject to modification and change as experience in use dictates. Therefore, the teaching staff constantly revises and improves the offerings. In addition, some courses are dropped and modified while new courses are added to the curriculum, necessitating additional effort in the writing of behavioral objectives and the creation of learning packages.

We have spoken in this report of learning packages without indicating that these packages contain not only the written behavioral objectives, pre-test, post-test, and suggested activities, but a multitude of media offerings ranging from audio tape cassettes to video tape, to film strips, to reference works, and other sources.

Under Title III of ESEA a series of video tapes in science, social studies, sex education, inservice training, and special education have been used to enhance teacher education and the pupil learning packages. The video tapes and the audio tapes are available through a dial access system in the Willingboro Memorial Junior High School. Video tapes are available in the other schools on a demand basis with the T.V. department setting up the playbacks.

One of the more ambitious programs for instituting the interdisciplinary concept of the ES'70 program was conceived through the cooperation of the U. S. Office of Education, State Department of Education, SCOPE Center at Rutgers, and the Willingboro Public Schools. The SCOPE Center at Rutgers University was a program funded under the Office of Education and directed by Dr. Bruce Tuckman.

This significant project was centered around job clusters as identified by an Ad Hoc committee from the television industry. The program was to develop terminal objectives and job-entry skills for youngsters in the television field. The job clusters included those occupations normally found before the camera, such as, set design, and talent; those behind the camera, such as, technician, cameraman, and floor manager; and the office occupations. See Appendix D. Funding for this program was not forthcoming due to presidential veto and has seriously hampered the development of an interdisciplinary curriculum model.

NETWORK ACTIVITIES

The ES'70 Coordinator has been in constant communication with not only the members of administration and staff of the Willingboro Public Schools but with assistance outside Willingboro ranging from the Office of Education to the State Department of Education to the County Superintendent's office and a myriad of other organizations. See Appendix E

The coordinator has been active at all network meetings and has served on committees helping to refine the aims and objectives of the network and the corporation structure.

In the latter effort the coordinator chaired a regional meeting for the purpose of refining aims and objectives of the corporation and reported the results to a selected committee of coordinators which met at CEMERAL, Central Midwestern Educational Laboratories, in St. Louis. At this meeting the Learner Responsive Curriculum and corporate activities were outlined. See Appendix F

CONCLUSION

It is the opinion of this writer that change will proceed at a much reduced pace from this point on. Although very little federal funding was available much change did occur during the early years of this project due to the fact that the idea of the organic curriculum was tremendously attractive and filled a void. Curricula offerings have been refined, teaching methodology has been modified, but further work will be more difficult because the revisions and modifications will be much less dramatic than in the past. It can be said that those who were most enthusiastic about the changes stemming from the ES'70 effort will continue their work, while those who have been reluctant will continue to be reluctant unless a methodology for changing the professional stance and behavior of the recalcitrants is used.

Funding for this work is of the utmost importance. Staff development aimed at changing behavior and subsequently attitudes must continue else the normal attrition of teachers will dilute and destroy the good work that has been done. By normal attrition we mean the outmoding of curricula offerings as new and more relevant courses of study are introduced which necessitate new and better learning packages with different behavior objectives. And, by attrition we mean loss of staff due to the normal movement of professional people.

The impact of the learning packages upon the teaching-learning process is varied as teachers and students vary. The basic responsibility for learning through the packages rests essentially with the student and his abilities to read and write cogently. Some students thrived in this atmosphere, others found that this method of individualization was not suited to either their talents nor their perception of the learning process. The great mass of students in the middle area, that is, those who are neither excessively intelligent nor excessively slow, generally accepted the learning packages, while youngsters at the lower end of the spectrum found their learning process hampered by their inability to read and write with the required facility.

Those students at the top of the scale proceeded rather rapidly through their work and were left with the feeling of inadequacy. Many methods of alleviating these series of problems were attempted. In all probability a greater diversification of instruction will be implemented with the learning packages and behavioral objectives approach being augmented by methodologies of a more personalized nature.

This effort of augmentation will assist in the evaluation of the students' progress which has been very difficult using only the learning packages. These problems have contributed to the decreased pace of change, since they are difficult to define and even more difficult to solve.

RECOMMENDATIONS

1. Financial support for staff development along the lines of humanistic education is essential for in this manner only can the behavior of teachers be changed.
2. Financial support for the development and evaluation of curricula that is relevant to the youngsters and individualized must be carried on.
3. Additional work in the interdisciplinary concept must be financed if the high school education of youngsters is to be of value to the student. The time has long since passed for the teaching of subject matter out of context with the students' aims, ambitions, and life problems.
4. Additional funds and personnel should be allocated to the task of orienting the Board of Education and the community to the intent and purposes of personalized, relevant education.
5. The concept of the organic curriculum must permeate the total school system if it is to be successful.

APPENDICES

- A. ES'70 Steering Committee
- B. Reports to Steering Committee (Samples)
- C. Learning Packages
- D. Vocational-Technical Education in Television Proposals (1st and 2nd years)
- E. Organizational Chart
- F. Paper entitled, "Learner Responsive Instructional System"

APPENDIX A

ES'70 STEERING COMMITTEE

Mr. Thomas E. Toale, Assistant Superintendent, Personnel
Mr. Marcel Gilbert, Assistant Superintendent
Mr. Elmer F. Corda, School Business Administrator-Board Secretary
Mr. Thomas S. Dietz, Administrative Assistant-Board Secretary
Mr. George Brandau, Coordinator Secondary Curriculum
Mr. Joseph A. McGinley, Coordinator Elementary Curriculum
Mr. Jerry Kaufman, Reading Supervisor
Mr. Joseph O'Donnell, Principal, A. Levitt Jr High School
Mr. Donald Marks, Principal, Willingboro Memorial Jr High School
Mr. Robert Schmidt, Principal, J. F. Kennedy High School
Mr. Edward Banos, Guidance Director, J. F. K. High School
Mr. John DePetrus, Foreign Language Teacher, Department Chairman
Mr. John Celani, Math Teacher, Department Chairman
Mr. Richard Smith, Vice Principal, J. F. K. High School
Mr. James Semmel, Principal, Garfield East Elementary School
Mr. Lyle Schofield, Art Teacher, Willingboro Memorial Jr High School
Mr. George Adams, Art Department Chairman, J. F. K. High School
Mr. Arthur Burrows, Science Teacher
Mr. Curtis Allen, Industrial Arts Department Chairman
Mr. Edward Pabian, Principal, Pennypacker Elementary School
Mr. Harlan Douglas, Burlington County College

APPENDIX B



WILLINGBORO REPORT

MARCH 1968

PARTICIPATING DISTRICTS AND SUPERINTENDENTS

Atlanta, Georgia
Dr. John Letson
Baltimore, Maryland
Dr. M. Thomas Goedeke (acting)
Bloomfield Hills, Michigan
Dr. Eugene L. Johnson
Breathitt County, Kentucky
Mrs. Marie Turner
Boulder, Colorado
Dr. Richard M. Fawley
Duluth, Minnesota
*Dr. L. V. Rasmussen
Ft. Lauderdale, Florida
*Dr. Arthur B. Wolfe
Houston, Texas
Dr. Glenn Fletcher
Mamaroneck, New York
Dr. Bernard Haake
Mineola, New York
**Dr. Ben Wallace
Monroe, Michigan
Dr. Harold C. Rapson
Philadelphia, Pennsylvania
Dr. Mark H. Shedd
Portland, Oregon
Dr. Melvin Barnes
Quincy, Massachusetts
Dr. Robert E. Pruitt
San Antonio, Texas
Dr. Bennie Steinhäuser
San Mateo, California
*Dr. Leon M. Lessinger
Willingboro, New Jersey
Dr. G. H. Reuben

* Member, Executive Committee
** Chair, Executive Committee

ES'70 EDUCATION SYSTEMS FOR THE 1970's, 1980's, 1990's AND BEYOND

Educators across the country have expressed concern with the growing disparity between the traditional curricular offerings of secondary schools and the fast changing needs of the high school graduate. A great number of innovative and experimental projects have been developed in local school districts in an attempt to satisfy local and regional needs and to contribute to the solution of the nationwide problems. The necessity for more extensive financing to achieve effective programs, the desirability of exchanging the experiences, and the important need to attack a nationwide problem with the resources at the federal, state, and local levels in addition to using the resources of universities, industry and research were the factors which created the ES'70 program as a local-state-federal cooperative partnership.

CONCEPTS OF THE NEW CURRICULUM

The new secondary school curriculum would concern itself with:

- providing an individualized education for each student.
- developing a program which would be realistic to the student in relation to the adult role he would eventually play.
- being based upon behavioral science.
- utilizing appropriate educational technology.
- being economically practical within available public resources.
- being developed in such a fashion as to place it into present organizations of secondary schools.
- being designed and testing with the ultimate availability to all United States school systems.

ES'70 - THE INITIAL STEPS

The representatives of twelve school districts and the United States Office of Education directed their thinking toward the establishment of a network of schools to work in cooperation with state departments of education, research organizations, institutions of higher education, and the United States Office of Education in a five year effort to develop a new comprehensive secondary school curriculum.

The twelve school districts were selected on the basis of their previous involvement in working with new approaches to education and, on the basis of their individual uniqueness, and on the basis of their geographical location. This group of twelve school districts was the initial network of ES'70 school districts. Willingboro was among the original twelve selected.

In May of 1967 representatives of the United States Office of Education met in Fort Lauderdale, Florida with superintendents and assistant superintendents from the twelve selected school districts. At that conference the concerns of educators from throughout the United States were discussed in relation to the changing needs of high school graduates.

After this initial conference, five other school districts were added to the network. The network was now composed of seventeen (17) districts interested in being involved in developing the newest of educational approaches and representative of each type of community in our country - from large urban centers to small rural villages.

ES'70 - CONFERENCE AND PLANNING TO DATE

Training Session - Bloomfield Hills, Michigan

Project coordinators were selected in each of the school districts. These project coordinators met in August of 1967 in Bloomfield Hills, Michigan. This two week training session exposed the coordinators to the concepts of behaviora. objectives, individualized instruction, systems design, educational technology, sensitivity training, current innovative activities throughout the country, and other concepts of the yet to be designed curriculum.

Duluth Conference

In September 1967, the superintendents and their project coordinators met with state and federal education representatives in Duluth, Minnesota. At this meeting additional plans were outlined in relation to the plan of action for the five year effort and the development of funding procedures to support the planning activities at the local level.

Atlanta, Georgia - Planning Meeting

In February 1968, network representatives met to develop additional plans to implement local activities and to coordinate the nationwide effort.

ES'70 - THE WILLINGBORO EFFORT

1. Soon after the Duluth Conference, local district coordinators submitted written proposals to the United States Office of Education detailing the planned activities of each district and the necessary funds to cover the expenses and salaries of the local coordinators. Contracts and needed funds were awarded by the United States Office of Education in January, 1968.
2. The Willingboro School District submitted an added proposal to the State Department of Education covering the need to institute in-service training for its high school staff. Funding was received and Willingboro was designated as the network "test center" for programmed in-service training materials developed for the United States Office of Education. This in-service program is presently in operation with over thirty teachers and administrators meeting in weekly sessions. These materials after the test run-through and the evaluation of their effectiveness, will then be used for in-service training by all districts in the network.
3. An ESEA Title III proposal submitted by Willingboro, currently under study in Washington, would provide funding for a three year effort in a study of

developing individualized instruction in the area of mathematics. This project would be related to similar programs instituted throughout the entire ES'70 network.

ES'70 - THE FUTURE CALENDAR

- New Orleans, Louisiana

In March, 1968, Willingboro will have a classroom teacher and a student participating in the planned activities. At this session, meetings with representatives of government, industry, the military, labor, students, researchers, and others will be held. At that conference, discussions will center around the terminal behavioral objectives which graduates should achieve.

- New York Institute of Technology

During the summer of 1968, the superintendents of the seventeen school districts will attend a one week training session.

- San Mateo, California

A six week program funded by the NDEA and United States Office of Education Research Division will be conducted during the summer of 1968. Efforts will be directed toward individualization of instruction in the areas of reading, writing and communications. Willingboro is allocated teachers for this institute.

- Duluth, Minnesota

Another summer conference in which Willingboro teachers will be involved will be hosted by this network member. In this six week session, concepts of the ES'70 program will be developed.

ES'70 - DIRECTION AND COORDINATION

The cooperative effort at the local-state-national levels is to be locally planned and directed, nationally coordinated and financed by federal, state, and foundation funds.

It has received the endorsement of the New Jersey Governor, New Jersey Commissioner of Education, the Willingboro Board of Education, the Willingboro Superintendent of Schools and national leaders in education.

ES'70 - BROAD CATEGORIES OF THE PLAN OF ACTION

- In-Service training
- School Plant Planning and Design
- Definition of Behavioral Objectives
- Basic Research
- Development of Instructional Modules

In-service training will expand to all seventeen districts and eventually to satellite districts working off the original network.

Investigations into new type school plant design will be conducted with subsequent contracts placed with a few of the primary school districts to work cooperatively with architects in planning.

Terminal behavioral objectives - the end goals achieved by students - and sub-behavioral objectives - the step by step goals to be achieved throughout the high school career will be developed in a coordinated local, state and national effort. Approaches to be used in the achievement of these objectives will vary from individualized tutoring and self instruction to large and small group instruction, and the use of educational technology.

A computer will be installed and tested in one school district with its use to be developed around data processing, student scheduling, curriculum storage, computer assisted instruction, prescription type scheduling and other capabilities of computer utilization. After the initial test, computers will be installed in each of the prime network schools.

The total curriculum will be broken into segments or modules which will be demonstrated and evaluated in the network schools. Eventually, all modules will be put together into one school for testing purposes and distribution to other schools.

ES'70 - THE END RESULT

The end goal is to develop, demonstrate and evaluate a new comprehensive curriculum which will serve the needs of future members of our society. Although this new curriculum will be developed at the secondary school level, plans call for similar development K-14 with eventual effect upon higher education.

ES'70 is the most concentrated nationwide effort ever attempted in education. Its development may well have effect upon teacher training, units of credit awarded to students, school plant design, teacher role in

education, and many other aspects of present day instruction.

The basic design of secondary schools has not changed in nearly one hundred years although the society for which it is designed has seen extreme change.

The Willingboro School District is in a position to contribute to the future of education as one of the pioneering members of the original planning network.

Development of Instructional Modules

In-service training will expand to all seventeen districts and eventually to satellite districts working off the original network.

Investigation into new type school plant design will be conducted with subsequent contracts placed with a few of the primary school districts to work cooperatively with architects in planning.

Instructional objectives - The end goals achieved by students - and sub-objectives - the steps by which goals to be achieved throughout the high school career will be developed in a coordinated local, state and national effort. Approaches to be used in the achievement of these objectives will vary from individualized learning and self-instruction to large and small group instruction, and the use of educational technology.

A computer will be installed and tested in one school district with the use of the developed record processing, student scheduling, curriculum, computer assisted instruction, presentation type recording and other capabilities of computer utilization. After the initial test, computers will be installed in each of the prime network schools.

The total curriculum will be broken into segments or modules which will be demonstrated and evaluated in the network schools. Eventually, all modules will be put together into one school for testing purposes and distribution to other schools.

ES-10 - THE END RESULT

The end goal is to develop, demonstrate and evaluate a new comprehensive curriculum which will serve the needs of future members of our society. Although this new curriculum will be developed at the secondary school level, plans call for further development K-12 with eventual effect upon higher education.

ES-10 is the most concentrated endeavor which ever attempted in education. The development may well have effect upon teacher training, points of credit awarded to students, school plant design, teacher role in

WILLINGBORO REPORT



JUNE 1968

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Dr. Richard M. Fawley
Duluth, Minnesota
*Dr. L. V. Rasmussen
Ft. Lauderdale, Florida
*Dr. Arthur B. Wolfe
Houston, Texas
Dr. Glenn Fletcher
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Monroe, Michigan
Dr. Harold C. Rapson
Philadelphia, Pennsylvania
Dr. Mark H. Shedd
Portland, Oregon
Dr. Melvin Barnes
Quincy, Massachusetts
Dr. Robert E. Pruitt
San Antonio, Texas
Dr. Bennie Steinhauser
San Mateo, California
*Dr. Leon M. Lessinger
Willingboro, New Jersey
Dr. G. H. Reuben

ES'70 CONFERENCE

SAN MATEO, CALIFORNIA

The business session of the ES'70 San Mateo Conference concerned itself with the following items:

1. An investigation into the possibility of establishing a nonprofit corporation of ES'70 School Districts is to be conducted by the E. F. Shelley Corporation by directive of the United States Office of Education and the ES'70 Executive Committee.
2. The Executive Committee is charged with the responsibility of investigating the possibility of adding one or two private schools to the primary network of seventeen public schools.
3. A management strategies program will be conducted by the New York Institute of Technology for Superintendents of the network schools on July 11, 12, 13, 1968.

* Member, Executive Committee
** Chairman, Executive Committee

4. The United States Office of Education plans to fund a study to identify the need and process for the involvement of public school students in the decision making process; local, state, and national education agencies are to be involved in such a study. It is also planned that selected ES'70 school districts be involved in such a study, and that the results of such a study be reported at the annual ES'70 network.

5. A closer relationship between the ES'70 Network and business and industry is to be established.

Among the guest speakers and their topics at the Conference were:

- Dr. Harry Silberman,
Systems Development Corporation

Computer Applications to Student Instruction
and Guidance

- Dr. Bruce Tuckman
Rutgers University

Analysis, Classification and Integration of
Educational Objectives

- Dr. James Rutherford
Project Physics
Harvard University

The Relevance of Ongoing Curriculum Development
Projects to ES'70

- Dr. Edmund Bodle
SMSC Mathematics
Stanford University

The Relevance of Ongoing Curriculum Development
Projects to ES'70

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- Dr. Joseph Lipson
Nova University
Fort Lauderdale, Florida

An Analysis of the Teacher's Role

- Walter Mylecraine
Assistant Commissioner
U. S. Office of Education

Architecture and Facilities

"Copies of these reports may be obtained by
contacting the Board of Education Office"

Reports of the activities of the various ES'70 School Districts were
presented. Written information related to these various projects are
available.

Other reports which are available:

- Base Line Data - Statistical Summary of ES'70 Schools

- Questions and Answers Regarding ES'70

- Draft Copy - ES'70 Innovations In Progress

- ES'70 Organization and Planning

A film concerned with ES'70 has been produced and will soon be ready
for distribution to the various ES'70 School Districts.

Mr. Gray recently made a presentation to various members of the
New Jersey State Department of Education related to the local and national
ES'70 activities.



WILLINGBORO REPORT

September 1, 1968

PARTICIPATING DISTRICTS AND SUPERINTENDENTS

Atlanta, Georgia
Dr. John Letson
Baltimore, Maryland
Dr. M. Thomas Goedeke (acting)
Bloomfield Hills, Michigan
Dr. Eugene L. Johnson
Breathitt County, Kentucky
Mrs. Marie Turner
Boulder, Colorado
Dr. Richard M. Fawley
Duluth, Minnesota
*Dr. L. V. Rasmussen
Ft. Lauderdale, Florida
*Dr. Arthur B. Wolfe
Houston, Texas
Dr. Glenn Fletcher
Mamaroneck, New York
Dr. Bernard Haake
Mineola, New York
**Dr. Ben Wallace
Monroe, Michigan
Dr. Harold C. Rapson
Philadelphia, Pennsylvania
Dr. Mark H. Shedd
Portland, Oregon
Dr. Melvin Barnes
Quincy, Massachusetts
Dr. Robert E. Pruitt
San Antonio, Texas
Dr. Bonnie Steinhauer
San Mateo, California
*Dr. Leon M. Lessinger
Willingboro, New Jersey
Dr. G. H. Reuben

* Member, Executive Committee
** Chairman, Executive Committee

ES'70 STEERING COMMITTEE

A steering Committee has been established to direct all the activities of the effort to revise and improve curriculum with emphasis on individualized instruction. This committee is composed of the high school principal, Mr. Robert Schmidt; two junior high principals, Mr. Marcel Gilbert and Mr. Joseph Kaufman; elementary curriculum coordinator, Mr. Joseph McGinley; three high school department chairmen, Mr. Harry Maloney, Mr. John De-Petris and Mr. John Celani; ES'70 Assistant Coordinator, Mr. A. Nelson Gray; ES'70 Coordinator, Mr. John Rosser; two elementary school principals, Dr. Joseph Budgy and Mr. James Semmel, and Superintendent of Schools, Dr. Gabriel H. Reuben.

LOCAL IN-SERVICE PROGRAM-SUMMER 1968

Committees representing four disciplines, English, Languages, Mathematics and Social Science were involved in an in-service program of 120 hours. The function of these committees was to: (1) learn to diagnose individual learning difficulties, (2) write course objectives that will specifically detail and measure the behavioral change sought in the individual learner, (3) develop assessment instruments and procedures to measure progress of students and effectiveness of alternate instructional media and strategies, (4) devise mode media mixes to utilize the most effective strategies for accomplishing each behavioral objective, (5) prepare to evaluate and field test in the 1968-1969 school year the written modules of instruction.

Dr. Jock Reid, McGraw-Hill Book Co., and Dr. Glen Snelbecker, Temple University, served as consultants to this group. Individualized Instructional Modules were developed in all four areas to be field tested in the on-going classroom program this fall.

BLOOMFIELD HILLS VISITS

In June members of the Steering Committee visited Bloomfield Hills, Michigan to study the program under the supervision of Mr. Robert Boston. This district is most active in ES'70 and has expended much time and effort in developing objectives and modules for individualizing instruction. An invitation to return to Bloomfield Hills while their summer inservice program was in progress was accepted by Willingboro.

During the week of July 22, seven members of the local inservice committees, representing administration and all disciplines, worked with Bloomfield Hills teams. Reports of this visit were very enthusiastic. Coordination of the work of these two districts will be most valuable in producing a nucleus of teacher trainers knowledgeable in the design and implementation of innovative, individualized instructional strategies.

ES'70 SUMMER INSTITUTE-DULUTH, MINNESOTA

Four Willingboro staff members attended a six-week summer institute, June 17-July 26, at Duluth, Minnesota. The institute was designed to train teachers to participate in applied research activities for assessing the effectiveness of a behavioral based high school curriculum integrating vocational and academic components. It is expected that the results of this institute will feed into the ES'70 network plan of systems analysis for high school curricular offerings. Participants contributed to the solution of a critical and immediate ES'70 problem: staff preparation.

Mr. Brandau's fine report of the Institute emphasized the fact that all ES'70 schools are directing their efforts toward the same goal, that of individualizing instruction through the use of behaviorally stated objectives, the multimedia approach, criterion test items, and the development of Individualized Instructional Modules.

MEETING WITH U.S. OFFICE OF EDUCATION REPRESENTATIVES-July 15

The Willingboro ES'70 Steering Committee met with Mr. David Bushnell and Dr. Robert Morgan of the U.S. Office of Education to discuss the local effort in the ES'70 Program and to learn what additional services the U.S. Office of Education might be able to provide the local district. A very stimulating discussion brought about many suggestions and recommendations for improvement of the local effort.

BURLINGTON COUNTY COMMUNITY COLLEGE

Contact has been established with Burlington County Community College to build a working relationship for using individualized learning materials K-14. This is similar to the relationship of Bloomfield Hills and Oakland Community College in Michigan. A visit to Michigan with representatives of our Community College is planned for the near future.

RIDER COLLEGE INVOLVEMENT

The teacher training segment of the Rider College Staff has met on several occasions with Mr. Rosser. Plans are being formed to provide teacher training laboratory experiences in the Willingboro School District with emphasis on the individualized instructional programs of ES'70 and I.P.I. Such a cooperative venture with higher education should add emphasis to the continuum education concept.

INDIVIDUALLY PRESCRIBED INSTRUCTION

The Willingboro School District has been invited to participate as an I. P. I. District in cooperation with Research for Better Schools. The Willingboro Board of Education has provided local funds to involve one of our elementary schools in the I. P. I. Math Program. This math curriculum, developed by Research for Better Schools and the University of Pittsburgh has been demonstrated in a number of Philadelphia and Pittsburgh area schools.

TITLE III MATHEMATICS PROGRAM

This proposal submitted in January 1968 has been placed in the approved-hold category and is presently awaiting funds to be distributed. The objectives of the proposed program are to design, develop, implement, evaluate and revise as necessary an individualized, learner centered, instructional system demonstrably superior to traditional instruction. The system will be based on specific, measurable, performance objectives. It will make use of existing materials and media. It will provide for individual student differences in learning modes. It will use student performance as a basis for material and strategy revision.

RESEARCH AND PROGRAM SPECIALIST

Mr. A. Nelson Gray has been appointed Assistant to Mr. Rosser in this capacity, in order to provide more emphasis in the areas of teacher in-service, material development, and ES'70 Network Coordination. Mr. Gray has served as guidance director, vice-principal, and high school principal prior to his assignment to this new position. His involvement should provide added emphasis to the Willingboro effort and should demonstrate commitment to the ES'70 Program on the part of the district.

LOCAL PILOT PROJECTS

The following Pilot Projects have been submitted and approved for inclusion in the curriculum in September 1968: Distributive Education, Electronic Stenography, Co-op Office Work Experience, Co-op Employment-Special Education, Mechanic Technician Trainee. These projects will be tied to the final plan of coordinating the academic and vocational curriculum.

EDUCATIONAL PERSONNEL DEVELOPMENT GRANT REQUEST

The Willingboro Public Schools has applied for an E.P.D.G. to continue through September 1971. The purpose of this project is to allow Willingboro the opportunity to expand its on-going activities to involve staff and knowledgeable consultants in the development and in-school field testing of individualized instructional materials. As a participating district in I. P. I., sponsored by Research for Better Schools, and the ES'70 Project, Willingboro has exhibited involvement, commitment, and on-going activities which require expansion if the end result, K-12 individualized curriculum is to be realized.

ES'70 LIBRARY

Because the library conference room at K. H. S. will be used for classes and because personnel from A. Levitt School, Willingboro Jr. High and K. H.S. will be using it, the ES'70 library will be established in Mr. Gray's office at the Riker-Delaware Building. This site offers better control and availability to people from all three schools.



WILLINGBORO REPORT

October, 1968

PARTICIPATING DISTRICTS AND SUPERINTENDENTS

Atlanta, Georgia
Dr. John Letson
Baltimore, Maryland
Dr. M. Thomas Goedeke (acting)
Bloomfield Hills, Michigan
Dr. Eugene L. Johnson
Breathitt County, Kentucky
Mrs. Marie Turner
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Dr. Richard M. Fawley
Duluth, Minnesota
*Dr. L. V. Rasmussen
Ft. Lauderdale, Florida
*Dr. Arthur B. Wolfe
Houston, Texas
Dr. Glenn Fletcher
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Dr. Bennie Steinhauer
San Mateo, California
*Dr. Leon M. Lessinger
Willingboro, New Jersey
Dr. G. H. Reuben

* Member, Executive Committee
** Chairman, Executive Committee

Representative members of the ES'70 School Districts, the United States Office of Education, and other support personnel recently met in Bloomfield Hills, Michigan.

Enclosed is a report from the U. S. Office of Education which outlines the variety of contracts which have been awarded to various educational and private organizations around the country. These various contracts will result in materials and data which eventually will become the ES'70 Secondary School Curriculum.

Very few of these projects are directly involved with any of the local ES'70 School Districts although they will eventually become parts of the program in all of the districts. It is interesting to note that Willingboro's plan to study school-to-home television programming is listed for potential funding.

For those readers who are interested, the numbers listed to the left of list contracts relate to the PERT Plan for the ES'70 Network Schools. The great number of activities listed are moving the network activities well along the PERT Plan and all activities are on schedule.

Actual modules of the individualized curriculum will be available within the next year or two to be placed in ES'70 Schools. This was voiced by Dave Bushnell, U. S. Office of Education.

A plan to put together a model of the ES'70 curriculum which can be used to illustrate what the total curriculum will be is being developed at this time. This should be ready for placement in network schools in the next 12 to 15 months.

Representatives questioned Dave Bushnell as to the status of the ES'70 Project should there be a change in administration in Washington due to the Presidential Election. Assurance was given that funding for the local districts and for the continuation of the total project have been established and that the change in administration should have little impact on the total program.

Willingboro was one of the districts which had foresight enough to write its ES'70 Project for more than one year. This means that at the end of the first phase of activities the district need not resubmit a proposal as is the case with other districts.

Willingboro's local efforts are well in line with the PERT Plan for local districts. Its activities concerned with teacher involvement in training programs and in curriculum development in addition to a concentrated effort to involve vocational programs in the curriculum have been an asset to its activities. In each of the sessions some positive comment related to Willingboro's activities was made.

A film concerned with the ES'70 Program will soon be available for use in the ES'70 Districts.

Copies of the ES'70 News were recently distributed. Anyone wanting additional copies should contact Mr. Rosser's office.

A steering committee of representatives of the elementary, junior, and senior high schools has been meeting on a weekly schedule to develop a local coordinated plan related to the ES'70 Project.

Mr. Gray is presently conducting a training program concerned with the development of behavioral objectives, and individualized instruction. At present the chairmen of the departments in the two junior high schools and the high school are moving through this program. At the conclusion of this phase of the training, members of the departments in these three schools plus members of the elementary school staffs will become involved.

Meetings with PTA executive groups, other community organizations, representatives of the county and state agencies, members of industry and business, and other interested groups are being conducted by Mr. Rosser and Mr. Gray to alert them to the activities and potentialities of the ES'70 Program.

Questions concerned with the ES'70 and related projects may be directed to Mr. Rosser or Mr. Gray at 877-7900.

U. S. Office of Education

Bureau of Research

Division of Comprehensive and Vocational Education Research

ES-70 Executive Committee Meeting

Chicago, Illinois

September 27, 1968

ESTIMATED ES-70 PROGRAM DEVELOPMENT COSTS--FY 1969 and FY 1970

The ES-70 program is made up of two types of investments. The first requires direct investment in school districts for the purpose of establishing a climate and an understanding of the elements of the program. The second consists of a series of research and development efforts that aim at producing a richer array of teaching alternatives to existing practices which would be made available to all local schools in the United States.

Core Activities. Parents, teachers, administrators, school board members, and other relevant groups need to be actively involved in the planning and implementation of the ES-70 program. In addition, the dissemination and communication of research results to the responsible parties must be carried out. To accomplish this, the Office of Education has linked with a network of 14 states and 17 local school districts who have volunteered to participate in the testing and validation of the various components of the

system. Four broad classifications of activities have been identified: staff development, instructional management and career guidance (including development of curriculum materials based on performance objectives and associated instructional procedures), school organization and administration and evaluation. As indicated on the lists which follow, funds totaling \$740,000 in FY 1969 and \$745,000 in FY 1970 have been earmarked for the "core costs" of ES'70 and will be utilized to establish a climate for innovation within the local districts involved. A portion of the "core costs" has been programmed for dissemination and communication between the network participants and those responsible for the R & D effort.

Component Development. All of the other projects represent significant research and development efforts in their own right. Their inclusion in this systematic plan for development and implementation is designed to insure that each of the component parts can be so organized that the cooperating school can assemble the components into a comprehensive system. The end product of this coordinated effort would be several tested alternatives of coordinated and cohesive instructional systems in the 17 school districts making up the primary ES'70 network. The ES'70 project will build upon recently completed and ongoing curriculum projects supported by the Bureau of Research, the National Science Foundation, the Office of Economic Opportunity, the Department of Labor and The Department of Defense. To date, the ES'70 schools have participated in the continuing development and

installation of such major curriculum efforts as Project Physics, BSCS Biology, the Social Studies Curriculum Program, Intermediate Science Curriculum Study, and the American Industry Curriculum Project. Other validated learning resources previously developed will also be incorporated into this multi-media instructional system as appropriate. The use of other supplemental financial and institutional resources is being explored, including regional educational laboratories and funds appropriated under EPDA and ESEA, Title III.

Anticipated Expenditures for
FY 1969

During Fiscal Year 1969, the following expenditures will be required from the budget of the Bureau of Research. Although the FY 1969 funds have not yet been appropriated by Congress, preliminary indications are that only \$5,922,000 will be available for ES-70 activities. This poses a problem, since the requirements for FY 1969 total \$7,279,000. A solution to this problem is being sought, and a variety of possibilities are under consideration.

A. Contractual Continuation Costs:

1. Core Activities

- | | | |
|------|--|---------------|
| 1-87 | a. Systems management assistance for the ES-70 network (7-1037)..... | \$379,000 (c) |
| 1-87 | b. Maintenance of local ES-70 coordination office in each participating school district..... | \$361,000 (v) |

2. Staff Development

- | | | |
|------|--|---------------|
| 5-24 | a. Analysis of the instructional management role of the teacher in the classroom of the future (8-0421)... | \$ 45,000 (c) |
|------|--|---------------|

3. Instructional Management and Career Guidance

- | | | |
|-----|--|---------------|
| 5-9 | a. Research and development on achievement motivation (7-1231)..... | \$ 88,000 (c) |
| 5-9 | b. Development of performance-based vocational curricula at Quincy, Mass. (5-0009)..... | \$130,000 (v) |
| 5-9 | c. Development of experimental cluster concept for vocational courses (7-0853)..... | \$ 80,000 (v) |
| 5-9 | d. Development, evaluation, and refinement of specific performance objectives as a model for secondary schools (8-0653)..... | \$206,000 (c) |
| 5-9 | e. Development of specific performance objectives for citizenship education (8-0457)..... | \$241,000 (v) |
| 5-9 | f. Development of specific performance objectives for office and business education (8-0414)..... | \$149,000 (v) |

5-25	g.	Planning for and experimentation with primary model for the integration and classification of performance objectives across discipline lines (8-0334).....	\$ 74,000 (v)
5-14	h.	Development of a computer-managed system for individualizing and optimizing education (8-0157)...	\$ 595,000 (c)
5-14	i.	Development of a model for computer-mediated multi-media courses (8-0446, 8-0447, 8-0448).....	\$1,400,000 (c)
5-25	j.	Evaluating and adapting Air Force instructional systems for use in public schools (8-0301).....	\$ 118,000 (v)
5-25	k.	Development of a counselor-oriented computer-based guidance system; SDC (7-1229).....	\$ 122,000 (v)
5-25	l.	Development of a computer-based system of guidance; AIR (7-0109).....	\$ 125,000 (v)
5-25	m.	Development of an information system for vocational decisions; Harvard (6-1819).....	\$ 497,000 (v)

4. School Organization and Administration:

5-28	a.	Development of a repertoire of techniques by which students can be scheduled out of the graded school organization and into a more individualized curriculum	\$ 132,000 (c)
5-81	b.	Exploratory development of models of planned educational change (8-0069).....	\$ 135,000 (c)

Sub-total: \$4,877,000

B. New Grants and Contracts to be Initiated as Continuing Effort for ES-70:

1. Core Activities (None)

2. Staff Development

5-24	a.	Analysis of the instructional management role of the teacher in the classroom of the future (second phase)	\$ 155,000 (c)
5-35	b.	Development of audio-visual technicians as subprofessionals in education.....	(EPDA funding)

3. Instructional Management and Career Guidance

5-25	a.	Analysis of vocational education requirements for ES-70 (Ohio R&D Center).....	\$ 50,000 (c)
5-9	b.	Definition of performance objectives - (In FY 1969 we expect to undertake the definition of specific performance objectives in biology, physics, math, English, arts and humanities, personal and social skills, and vocational basics).....	\$ 540,000 (c)
5-9	c.	Basic study on definition of objectives in the affective domain.....	\$ 75,000 (c)
5-25	d.	Conference on the state of the art in objectification of educational goals.....	\$ 25,000 (c)
5-13	e.	Development of a miniature ES-70 instructional module (first phase).....	\$ 100,000 (c)
5-25	f.	Development of model program for in-school education of the handicapped (first phase).....	\$ 20,000 (c)
5-80	g.	Development of a computer utility for educational systems (CUES).....	\$ 787,000 (c)

4. School Organization and Administration

5-19	a.	Study of student involvement in the decision-making processes and school policies.....	\$ 50,000 (c)
5-28	b.	Utilization of modern management techniques in school administration.....	\$ 100,000 (c)
5-84	c.	Development of new techniques and procedures for evaluation and accreditation.....	\$ 100,000 (c)
5-28	d.	Study of the feasibility of implementing a twelve-month school program in the Atlanta schools.....	\$ 200,000 (c)
5-26	e.	State-wide ES-70 planning study in Oregon.....	\$ 100,000 (c)
* 5-20	f.	Study of the role of ETV in community-school relations (Willingboro).....	(DESR/ETV funding)

5. Evaluation

5-85	a.	Design of evaluation plans for the overall ES-70 effort	\$ 100,000 (c)
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Sub-total \$2,402,000
Grand Total \$7,279,000

Explanatory notes for FY'69 Figures:

Expenditures from cooperative research funds are indicated by the symbol (c)

Expenditures from vocational research funds are indicated by the symbol: (v)

Summary of FY'69 Requirements:

	Continuation Costs	Continuing Effort	Total
Cooperative Research Funds	\$2,980,000	\$2,402,000	\$5,382,000
Vocational Research Funds	1,897,000	-0-	1,897,000
Total:	\$4,877,000	\$2,402,000	\$7,279,000

Anticipated Expenditures for
FY 1970

During Fiscal Year 1970, the following expenditures will be required for the budget of the Bureau of Research. These requirements have been included in the Research and Training Preliminary Budget of the Office of Education for FY 1970.

A. Contractual Continuation Costs:

1. Core Activities

- a. Systems management assistance for the ES'70 network (7-1037)..... \$ 380,000 (c)

2. Staff Development (None)

3. Instructional Management and Career Guidance

- a. Research and development on achievement motivation (7-1231)..... 90,000 (c)

- b. Miniature model of ES'70--(This effort which begins in FY'69 will attempt to build a 20-30 hour instructional sequence showing the operation of an individualized instructional program which integrates academic and vocational education, and utilizes a multi-media approach to learning)..... 300,000 (c)

- c. Development of a computer utility for educational systems (CUES)..... 2,646,000 (c)

- d. Development of a computer-managed system for individualizing and optimizing education (8-0157).... 595,000 (c)

- e. Development of a model for computer-mediated multi-media courses (8-0446), (8-0447), (8-0448)..... 795,000 (c)

- f. Continuation of previously initiated work on specification of performance objectives in biology, physics, math, English, arts and humanities, personal and social skills, and vocational basics..... 600,000 (c)

- g. Final testing and revision of performance-based vocational curricula at Quincy, Mass. (8-0009)..... 50,000 (c)

- h. Continuation of previously initiated work on specification of performance objectives (8-0457)..... 172,000 (c)

1.	Continuation of previously initiated work on development of career guidance systems (7-0109, 7-1229).....	231,000 (v)
4.	School Organization and Administration	
a.	Improvement of techniques for accrediting new curricula.....	150,000 (c)
b.	Utilization of modern management techniques in school administration.....	250,000 (c)
c.	Twelve-month plan--(This project will continue to test and revise the feasibility of implementing a twelve-month school program in Atlanta, one of the network schools.).....	200,000 (c)
5.	Evaluation	
a.	Development and operationalization of an evaluation plan for the overall ES'70 effort.....	<u>350,000 (c)</u>
	Sub-total:	\$ 6,809,000
B.	New Grants and Contracts to be Initiated as Continuing Effort for ES-70:	
1.	Core Activities	
a.	Maintenance of local ES'70 coordination office in each participating school district.....	365,000 (v)
2.	Staff Development	
a.	Development of prototype training units for inservice and preservice teacher education based on the data and performance specifications generated by an analysis of the role of the teacher in the individualized classroom--(This analysis will be completed in January 1969).....	400,000 (c)
b.	Analysis of existing and required staff qualifications and roles in the ES'70 schools.....	150,000 (c)
c.	Development and implementation of inservice education programs for staffs of the ES'70 schools.....	140,000 (c)

- d. Research on adjustments in existing or components of new preservice personnel development programs--(To be built upon strategies generated out of the early BR investment in improvements in elementary teacher education.)..... 90,000 (c)

3. Instructional Management and Career Guidance

- a. Definition of performance objectives--(in FY 1970, we expect to undertake the definition of educational objectives in the remaining areas of the high school program: chemistry, general science, foreign language, and social studies..... 360,000 (c)
- b. Development of an alternate model for integration and classification of performance objectives across discipline lines..... 60,000 (c)
- c. Development of career guidance curricula and materials... 500,000 (c)
- d. Specification of performance objectives in viable occupational areas selected on the basis of an FY'69 study..... 540,000 (v)
- e. Development and initial operation of primary model for the integration and classification of performance objectives across discipline lines..... 100,000 (v)

4. School Organization and Administration

- a. Alternative models for student involvement--(Based on results of the study undertaken in FY'69, alternative models of student involvement in the decision-making processes and school policies will be developed and implemented in several ES'70 schools.)..... 200,000 (c)
- b. Parental involvement--(A review of the current methods of involving parents in school programs in order to develop alternative strategies for involving parents in educational change programs.)..... 75,000 (c)
- c. Role of school as a social organization in the community--(Study of the role of the school in community affairs as a focal point for comprehensive services to the community.) 100,000 (c)

d.	Study of existing and needed pupil-personnel services for ES'70 schools.....	80,000 (c)
e.	Analysis of current and required facilities and equipment for an ES'70 type program and of alternative school-plant management procedures.....	150,000 (c)
f.	Study of local financial support resources, requirements and problems associated with the implementation of an ES'70 type program.....	100,000 (c)
5.	Evaluation (none)	
	Sub-total:	\$3,410,000
	Grand Total:	<u>\$10,219,000</u>

Summary of Fy'1970 Requirements.....

	Continuation Costs	Continuation Effort	Total
Cooperative Research Funds	\$6,356,000	\$2,405,000	\$8,761,000
Vocational Research Funds	453,000	1,005,000	1,458,000
Total:	\$6,809,000	\$3,410,000	\$10,219,000

MEMORANDUM

TO: ES'70 Steering Committee Members

FROM: Mr. John Rosser

SUBJECT: Review of Last Meeting - Preview of Next Meeting

DATE: November 18, 1968

I. Review of Last Meeting

A. Mr. Gray distributed materials related to terminology which will be used to create a common ground of communication for all active participating staff members.

B. Mr. Brandau reviewed his visit to Nova School. In an excellent report of the Nova activities Mr. Brandau created the basis for a discussion of Nova's program as related to Willingboro's activities.

1. Copies of materials concerned with Mr. Brandau's presentation are available through Mr. Rosser's office.

C. Concern was expressed by Mr. Gilbert in relation to supply needs for the development of materials during next year's school term. It was recommended he submit needs with proper justification to the Superintendent's office; with our present plan to build budget on the basis of need no major problems should materialize as long as proper planning and justification are included in any requests.

II. Next Meeting - December 4th at Willingboro Memorial Junior High School (Promptly at 8:00 P. M.)

A. Dr. Budgy - Taxonomy

B. Mr. Gilbert - Exploration of budget and other problems

C. Committee - Review of progress to date and development of plan to continue progress

D. Mr. Rosser - Report of ES'70 November meeting

III. Conclusion -

Although leaving the district as the official coordinator of local ES'70 activities, Mr. Rosser requests that he continue to function with the Steering Committee group in order to assist in its continued progress. The enthusiasm, creativeness, and willingness to get involved on the part of members of this committee has been greatly appreciated by Mr. Rosser. Any manner in which he might continue to serve in his new position as Executive Director of the South Jersey Region - Educational Improvement Center should be explored; his willingness to assist is strong.

REPORT ON THE NOVA EDUCATIONAL COMPLEX

Fort Lauderdale, Florida

George C. Brandau

The following is a general description of the Nova School complex at Fort Lauderdale visited by me in early November, 1968. I must say initially that I was overwhelmed by the implications of the system that I investigated. The activities being conducted at Nova make our more traditional schools in the area seem primitive. Nova has much to offer. They are not without error, but this is undoubtedly the most innovative program in the country in the area of public school.

NOVA

This is a county public school of 3,000 students housed in a campus style structure carrying on a program for the junior-senior high school span. On the same seven acres, there is also an elementary school, a Junior College, and the beginnings of a University. Eventually Nova expects to run a continuous program from K-PhD.

Membership to Nova is by application, first come-first served. The students range from the lowest to the highest in ability and are not selected by testing, IQ, et cetera.

The building is built in wings and linked together by overhead roofing that covers the walkways. Each wing is developed as a major academic area such as math, English, Social Studies, and Technical Science. The wings center around LRC's and Quest Centers where students work as individuals or small groups during their unscheduled time. To say that the school is well equipped is putting it mildly. The expansive use of TV, dial access audio and video, listening posts, microfilm, et cetera is fantastic. You find twenty to thirty carrels for AV-TV activities. There are even typing carrels for the students with typewriters available.

There are special rooms for everything, down to the office of the teacher aides. All rooms are accordian divided to be used for large or small group activity. A unique feature are the angled interior walls which provide for joining angular rooms.

The equipment is extremely complete in all areas. The printing capacity of the school is terrific. There are computers. TV and photo equipment is more than adequate. They have a microfilm machine.

Nova has been aided by grants. These include sums from Ford Foundation (Learning Packages), Kettering (dissemination) and ES'70.



WILLINGBORO REPORT

DECEMBER, 1968

ES'70 NETWORK MEETING - WASHINGTON, D. C.

On November 21, 1968, Dr. Gabriel H. Reuben, Mr. John Rosser and Mr. Gray attended the ES'70 Network Meeting at the Washington Hilton Hotel. The agenda included: (1) Greetings and Remarks, Dr. Norman Boyan; (2) Coordinator's Report, Mr. Eliot Spack; (3) ES'70 - Partnership for Learning, A Slide Presentation; (4) Comprehensive Report and Action Items, Dr. Ben Wallace; (5) The ES'70 Information System, E. F. Shelley Company; (6) Report and Comments, Mr. David Bushnell; (7) Reaction to Aerospace Education Foundation Conference; (8) Discussion.

CALCULATOR PROJECT AT KENNEDY HIGH

A pilot project of eight weeks duration is in progress at Kennedy High School involving the use of fifteen calculators loaned to the mathematics department by the Olivetti Underwood Company. The calculators are used as a motivational technique for students in Mr. Kane's individualized program in General Math I and in Mr. Rocco's Traditional General Math II course.

The experiment uses flow charting methods along with the calculators to increase computational skills, problem solving, conceptual skills and attitudinal changes. Flow charts lead the student through the necessary steps to the solution of a problem and help him plan similar programs for future problems. Not only are students learning to operate calculators but they are also working with the very practical problems of income, insurance, taxes, et cetera.

PARTICIPATING DISTRICTS AND SUPERINTENDENTS

Atlanta, Georgia
Dr. John Lataen
Baltimore, Maryland
Dr. M. Thomas Goodale (acting)
Bloomfield Hills, Michigan
Dr. Eugene L. Johnson
Breathitt County, Kentucky
Mrs. Marie Turner
Boulder, Colorado
Dr. Richard M. Farley
Duluth, Minnesota
*Dr. L. V. Rasmussen
Ft. Lauderdale, Florida
*Dr. Arthur B. Wolfe
Houston, Texas
Dr. Glenn Fletcher
Manassas, New York
Dr. Bernard Hasko
Minneapolis, New York
**Dr. Ben Wallace
Muskegon, Michigan
Dr. Harold C. Rappan
Philadelphia, Pennsylvania
Dr. Mark H. Shedd
Portland, Oregon
Dr. Helen Barnes
Quincy, Massachusetts
Dr. Robert E. Pruitt
San Antonio, Texas
Dr. Bonnie Steinhauser
San Marcos, California
*Dr. Lynn M. Leasinger
Willingboro, New Jersey
Dr. G. H. Reuben

* Member, Executive Committee
** Chairman, Executive Committee

IN-SERVICE TRAINING PROGRAM

The training program for writing behavioral objectives and developing individualized instructional modules is continuing. Mr. Gray meets with four groups twice a week using Educational Technology - The Deterline Program. The groups include administrators and department chairmen at both junior high schools, the elementary principals and coordinators, and the administrators and department chairmen at Kennedy High School. The schedule has been arranged to complete the program in February, allowing the remainder of the school year to extend the training to the entire Willingboro staff.

STUDENT PERSONNEL DATA

The E. F. Shelley Company, management company for the ES'70 Network, has distributed to network schools an outline of student personnel data items to be secured and stored in the Central Data Bank for ES'70. There are two reasons to begin to secure uniform student personnel data from the ES'70 Network schools.

1. Evaluation - The network should be postured to provide minimal data on students anticipated to be needed and/or useful in applying whatever design emerges from research and development projects being established in the area of evaluation.
2. To identify gross changes - if any - that might be occurring in the characteristics of ES'70 school populations. It is important to know whether or not the characteristics of the student is stable or changing; if changing - how?

The data bank must start where schools are now. What data are they now recording and in what form. Coordinators will be contacted to complete this stage of the process. With this information an analysis of common denominators will reveal which districts need to begin to record additional items to achieve the commonality desired. At the same time the form of recording can be examined to determine its computer compatibility.

Guidance departments of the Willingboro secondary schools are now examining the suggested outline for possible compliance with the final form as adopted by the Executive Board.

LEARNING RESOURCE CENTERS AT THE JUNIOR HIGH SCHOOLS

Both A. Levitt and Willingboro Memorial Junior High Schools have established learning resource centers to support the ES'70 concept of individualized instruction. Each L.R.C. is allocated to a major discipline with minor fields added. English, math, social science and science are the primary areas. Students select a block of time to work in the area of their choice. Teacher specialists are assigned to the L.R.C.'s throughout the day to provide one-to-one help to students needing assistance. The L.R.C.'s are not only equipped with reference materials in the assigned areas, but are also fortified with multi-media learning tools including dial access audio and visual film strips, overhead projectors, film and filmstrip projectors, tape recorders, slides, maps, globes, science displays, et cetera. The L.R.C. is the core of the individualized learning program.

INDIVIDUALIZED MATH PROGRAM AT KENNEDY HIGH SCHOOL

During the summer of 1968, Mr. Celani, Mathematics Department Chairman, Mr. Kane, Mr. Persons and Mr. Rocco began this program by developing several individualized instructional modules for the first course in Fundamentals of Mathematics. In September, after an orientation period and pre-testing, Mr. Kane and thirty students began the program. Each module is based on behavioral objectives which inform the student of the terminal performance expected. Students are permitted to proceed with the learning activities at their own rate. Teacher assistance and progress checks are provided. Effort is made to assure each student maintains a reasonable schedule of work completion. As each module is completed, the work is checked. A post-test is administered to determine degree of mastery and the student proceeds to the next module of instruction. The general reaction of students to the program is very favorable. There is much excitement about this new method of learning.

TRIMESTER SCHEDULING AT JUNIOR SCHOOLS

The Abraham Levitt and Willingboro Memorial Junior High Schools, Willingboro, New Jersey embarked on an adventurous innovative educational program in September, 1968. The major features of this program are:

- The trimester scheduling of most courses, and
- The opportunity for all 7, 8 and 9th grade youngsters to choose from among the 125 difference course offerings.

TRIMESTER (Cont'd)

Early in our planning of the new program, the staff recognized the need for improved ways to meet the individual needs of students. The structure is intended to broaden the parameters, thereby increasing the flexibility, for operative procedures which form the substance to meet the educational needs of the students in the classroom. Direction for bringing about the necessary changes in classroom instruction has been provided by the ES'70 program. The goals of both the ES'70 program and our revised school program merged at the points of the individualization of instruction and allowing each student to move at his own best pace.

Learning packets will be our major vehicle for achieving our principal goals. As part of this process, we are preparing diagnostic tests in order to determine entry level skills of each pupil in each area of endeavor. We are also preparing post-tests to determine both quantitative attainment of stated objectives.

We have a structure and a plan for a continuing operation which will allow the junior high school staffs to make continued progress in providing every student with optimum educational opportunities. To realize our goals, we will need the best efforts of not only the professional staffs but also of the students and the community.

Before the end of this year, all segments of our population will have an opportunity to participate in a significant and meaningful way to help us to improve our program. Separate questionnaires are being prepared for student, parent and staff response. These responses will, therefore, reflect the reactions of a broad-based segment of our population. They will provide the core of the data needed to evaluate our current program and to make plans for 1969-70.

**WILLINGBORO PUBLIC SCHOOLS
WILLINGBORO, NEW JERSEY**

MEMORANDUM

TO: ES'70 Steering Committee Members

FROM: Mr. Thomas S. Dietz

RE: Report of Coordinators Meeting, Houston, Texas, March 3rd and 4th
Report of Full ES'70 Meeting, San Antonio, Texas, March 6th and 7th

DATE: March 12, 1969

There were many agenda items having to do with the operation of ES'70 and I shall try to touch on the highlights. Bob Pruitt of the Office of Education in Washington, D. C. first gave us a run-down on the organic curriculum and some history of ES'70. He included these purposes of the ES'70 network:

1. The member schools are to implement the organic curriculum.
2. Member schools are to share their successes and failures.
3. This sharing also includes the U. S. Office of Education with suggestions for priority spending.
4. The trying out and evaluation of materials.
5. Evaluation of the network system, formally and informally.

The discussion that followed this was spirited and ran through the gambit of fears and frustrations and successes ending with these tasks as accepted by all of the Coordinators.

1. A repackaging of ES'70 (making it more available and palatable to all).
2. An increase in cooperation with other agencies.
3. A listing of priority recommendations for the Office of Education.

Dr. George Donahue of the E. F. Shelley Company enlarged upon these and emphasized these three points:

1. The development of performance objectives leading to the production of learning modules.
2. Staff development.
3. Evaluation

In addition he offered the following considerations:

1. That U. S. Office of Education money be used for school district planning and development of performance objectives.

2. An examination of the "state of the art". That is, an examination of performance objectives as established by any organization.
3. An evaluation of student personnel data with a similar evaluation of staff personnel.
4. Finding money for the dissemination of materials.

Since ES'70 is now a not-for-profit corporation under the laws of the District of Columbia with each of the superintendents as a member of the board of directors, it was further recommended to us that we urge the corporation to consider the above points.

The following day was spent in enlarging the points made on March 3rd with emphasis on relevant learning which would be incorporated in the performance objectives. Learning experiences are to be consistent with what we know of the teaching-learning process, which is the translation of objectives into activities. And, finally, the areas of teacher training, space, guidance, and technology which could come under the heading of management.

On the 5th of March a committee of coordinators met distilling much of the above into a recommendation to the Executive Committee composed of superintendents. On March 6th there was a general discussion of the corporation including the question of funding and the commitment of state departments of education and school districts to the corporation. Due consideration was taken of the coordinator's recommendations and the Executive Committee of superintendents will act upon these in April. Mr. Bushnell of the U. S. Office of Education was receptive to the coordinators recommendations, although noncommittal at this moment.

Dr. Ronald Lippitt put the full group through an exercise known as "knowledge utilization". This was helpful to all of us when we consider two of the main objectives of ES'70 people: (1) retrieval of outside information, and (2) the mobilization of internal resources.

Mr. Ash of the U. S. Office of Education spoke to us concerning the Vocational Education Amendments of 1968. These amendments redirect the original Vocational Education Act of 1963. He spoke of new definitions including pre-vocational education for teachers, remedial instruction, preparation of students for advanced programs and the like.

There is a new dimension to the Vocational Education Act which demands more of state departments and yet provides even greater opportunity for the implementation of the ES'70 concept. I shall be investigating this within the next few days and report on it.

Within the near future, and with the permission of the Superintendent, we shall meet to discuss ES'70 in Willingboro. I hope to meet all of you very soon.

MEMORANDUM

TO: Dr. Gabriel H. Reuben

FROM: Mr. Thomas S. Dietz

SUBJ: Report of Atlanta Meeting on the Vocational Education Act
of 1967 as amended 1968

DATE: March 17, 1969

We were particularly concerned with Part D "Exemplary Programs and Projects" as stated in Section 141 under Findings and Purposes. This act is to stimulate "through Federal financial support" new ways to create a bridge between school and earning a living for young people, who are still in school, or who have left school either by graduation or dropping out, or who are in postsecondary programs of vocational preparation, and to promote cooperation between public education and manpower agencies.

The rather large group of 120 was divided into some eight sections to study:

1. The implications, priorities, and program potential.
2. The problem of developing a statement of goals.
3. The possible resources, concepts and programs.
4. Administrative patterns and strategies for the implementation of the act.

There is a sense of urgency implicit in the act and certainly with the conferees. The group was composed of vocational education people, U. S. Office of Education people, men and women from State Departments of Education, and many of us common school folk.

After we distilled all of the high-flown language the conference, in my view, boiled down to these three implications:

1. Curriculum modification and redirection with an emphasis on infusing vocational education aims into the total K-12 program.
2. This would involve staff planning and perhaps retraining.
3. New techniques (such as the "ES'70 Concept" and media should be used.

All of this adds up in my mind to a systems approach to vocational education and this might well be a vehicle for our ES'70 efforts.

The priority list would seem to be something of this nature:

1. A re-examination of the total staff and the student body to ascertain attitudes toward vocational education.
2. The creation of a new staff involvement with -
 - a. curriculum redesign so as to provide terminal and/or continuing vocational education with enough academics to allow the youngster to be accepted into college.
 - b. the development of new methods for media application.
 - c. personalized vocational education.
3. Coordination of the guidance staff, regular teaching staff, administration and community leaders.

Number three above might indicate to us the composition of a planning group for the implementation of this vocational education act.

Under program potentials, that is, what programs can come out of this act, the field is indeed broad. However, these points are considered to be of utmost importance.

1. A K-12 effort.
2. Close cooperation with such community colleges and technical colleges as may be in the area.
3. A realistic individual approach for the students.
4. Federal, state and local coordination.

Apropos the last point, I met two of our State Department people in Atlanta who are extremely anxious that this act be implemented. However, our Governor is yet to appoint a Vocational Education Advisory Committee as he must do. State Department people and a certain Mr. R. D. Marshall, Administrative Coordinator for Plans for Progress in Washington, D. C. is also attempting to hasten the appointment of this advisory committee.

I would suggest that several of us sit down to discuss the formulation of a proposal for a planning grant. I understand this may be a one or two page letter which we would send to our State Department.

There is much more to this whole act and I have nine papers which were read and discussed at the conference which would well serve as background. I think a meeting of the interested people should take place almost immediately because the breadth and scope of this act is such that it will force a personal re-orientation concerning vocational education.

TSD:bg

Copies to: Mr. Schmidt
Mr. Gilbert
Mr. McGinley
Mr. Brandau
Mr. Kaufman

MEMORANDUM

TO: Dr. Reuben

FROM: Tom Dietz

SUBJECT: ES'70 Steering Committee Meeting, 26 March 1969

DATE: April 1, 1969

The first part of the meeting included a film of ES'70, the report on ES'70 incorporation, the report on Vocational Education Act of 1963 as amended in 1968, was of a historical and informational character.

There was a discussion on the implications and/or possibilities of combining the ES'70 concepts and the demands of the Vocational Education Act. As coordinator I have contacted federal and state people concerning a planning grant coupled with a feasibility study in the area of Vocational Education. The program, briefly, would start with an exemplary program in action utilizing our television studios and equipment while training youngsters in job-entrance skills. The second part of this program would be planning for an enlargement of this same sort of vocational training utilizing radio and printed media.

The theory is that the program in television would be operative and under study by planning personnel. The television program would provide a laboratory. The other half of the program would be the feasibility study which would include a demographic study, technical research, academic planning along ES'70 lines, administrative planning for programming the academics and the management of the program utilizing local personnel, university consultants, state department consultants and others.

I will continue to work with people in the State Department, Vocational Education Section, and U. S. Government to push our application for a planning-grant-feasibility-study.

The last item on the agenda was the discussion of our local inservice effort. The two junior high schools indicated that they are ready, willing, and able to go forward and would need only the Vimcet materials of audio tapes and filmstrips to complete their needs. George Brandau's materials will be used extensively. The high school, due to the scheduling of teachers is in a less favorable position, and it was indicated that their inservice program would have to take place in the summer. I am searching for monies to do this.

Your coordinator was pleased with the positive reaction and the direction the committee gave him. There is much work to be done. We shall meet again probably the latter part of April for another reporting session get-together.



WILLINGBORO

New Jersey

MEMORANDUM

TO: ES'70 Steering Committee

FROM: Mr. Thomas S. Dietz

RE: The Network Meeting, Quincy, Massachusetts, October 27th
Through 31st, 1969

DATE: November 17, 1969

During the first two days of the conference the coordinators met separately and then with the principals who were in attendance. George Love was Program Chairman of the coordinators' meeting.....and his notes are attached.

I believe this to have been a successful meeting. There was little useless talk. We are faced with a June 30, 1970 deadline beyond which the Office of Education may not finance ES'70 as it has in the past.

This forced the individuals to think positively about immediate returns from their participation in ES'70. It forced us to think, too, of accountability that now seems to be a favorite word of those in high places in the Office of Education. It is difficult to measure ES'70 in terms of accountability. Too many mistakes have been made because of the variables that were forced into every facet of the ES'70 network and its tie with the Office of Education.

This is no time to cry about mistakes that have been made. The results of these mistakes are now the current problems facing the network and each individual school.

At the round table discussion, each coordinator reported on the ES'70 activities in his school district and each contributed positively to the discussion. The impetus of the ES'70 concept has certainly created an atmosphere and a method of operation that has benefited each school system. This is not measurable excepting in a subjective manner, nor

in my opinion should we attempt to measure at this time since the operation of ES'70 is still in its infancy.

We should become accountable, but at the appropriate time. One cannot stand ready to be accountable with only a partially built program, and yet this very lack of specific data has caused concern with the Office of Education.

As far as funding goes from the Office of Education, we shall be in competition with all other programs. We will not enjoy our former favorable position. I do not condemn this attitude on the Office of Education, but rather state this so that each of you will know our position. I think we can stand up well in competing with other ideas and programs for the federal dollar.

The second attachment is a memorandum to Hugh Livingston, Chairman of the ES'70 Corporation from Eliot Spack, Chairman of the coordinators. This memorandum dated October 29th gives the results of the coordinators' and principals' joint session and our urgings to the Board of the ES'70.

The first two steps have been accomplished. Let me discuss the second step first. An Executive Secretary has been selected to serve on an interim basis. This is Eliot Spack, Chairman of the ES'70 coordinators. He will hold the fort at least until June 30th.

Eliot in turn has asked several of the coordinators to hold regional meetings to translate the broad goals of ES'70 into precise and specific network objectives. I have been asked to chair the Eastern Regional meeting which will include the coordinators and, hopefully, the principals from Quincy, Massachusetts, Mamaroneck, New York, Philadelphia, Pennsylvania, Baltimore, Maryland, and Willingboro, New Jersey. This meeting will be held at the Rickshaw Inn, Cherry Hill, New Jersey on November 19th and 20th. Those of you on the Steering Committee who can attend this meeting are cordially invited.

Items three through five are being considered by both the Board and our Executive Secretary. Action should be forthcoming.

I consider this a time for decisive action on the part of all members of the ES'70 network. It is time that we implement the ES'70 concept in a concrete, positive manner. To that end, the Willingboro Public Schools has a proposal in the State Department of Education in Vocational-Technical Education in Television. This proposal has the backing of the Office of Education which has allowed Dr. Bruce Tuckman of the SCOPE Center at Rutgers to realign his budget monies so as to give Willingboro the full-time assistance of one man. The State Department of Education has stated that our proposal is unique - different from all others thus far submitted - the television industry, through its representatives on our Advisory Board, and the staff at the John F. Kennedy High School are enthusiastic. To the best of my knowledge, this is the first proposal involving the Office of Education, a college or university, a state department of education, and the local school system in an effort to develop a program in vocational-technical education in job-clusters - before the camera, behind the camera, and in the office through the use of interdisciplinary performance objectives. This program should give each youngster job-entry skills in the field. In addition, Burlington County Community College has evidenced interest in this program.

ES'70 is moving ahead, and now with its more centralized leadership and with the soon to be developed specific network objectives there can be little to hinder our progress, provided only that the restriction of time does not prove to be too great a stumbling block.

TSD:bg
encl

**WILLINGBORO PUBLIC SCHOOLS
WILLINGBORO, NEW JERSEY**

MEMORANDUM

TO: Mr. Tom Toale
ES'70 Steering Committee
Building Administrators
Coordinators

FROM: Mr. Tom Dietz

RE: ES'70 Conference, Chicago, June 22 to 26, 1970

DATE: July 6, 1970

The organizational business transacted by the Board of Directors included the election of Tom Toale to the ES'70 Board. He replaces Gabe Reuben who has moved to the superintendency of University City.

University City was accepted as a member of the ES'70 Corporation.

The Board of Directors now consists of:

President	-	Gabriel H. Reuben, University City, Mo.
Vice President	-	Lawrence P. Creedon, Quincy, Mass.
Secretary	-	A. Hugh Livingston, San Mateo, Calif.
Treasurer	-	Robert Christiansa, Monroe, Michigan
		Clarence York, Haddonfield, New Jersey
		Donald Peckenpaugh, Duluth, Minnesota
		Dale Parnell, Salem, Oregon
		Carl L. Marburger, Trenton, New Jersey

Ben Wallace of Mineola will continue as liaison with the J.D.R. III Arts Program directed by Dr. Stoddard.

Elliot Spack will continue as Acting Executive Secretary until, at least, the first of September.

Three organizations are making proposals to the Board of Directors to act as the management branch of ES'70. The three organizations are Research for Better Schools, New York University, Central Mid-Western Educational Regional Laboratory (CEMERL).

There is to be a Board of Directors meeting July 13th in Denver to assess the proposals of these organizations. ES'70 needs strong leadership with stature in the educational field.

The goal of the network meeting was to focus on school-industry cooperation. Each group from each school system identified the values of such cooperation, the skills necessary to develop the cooperation and to implement their plans. Those of us from Willingboro identified the following industries for investigation: RCA, Philco-Ford, Campbell's, Public Service, Inductotherm, Circuit Foil. We must first identify the people in industry to whom we may talk. Others with some experience in this found that they were constantly shuffled from one individual to another and got a negative feeling. The identification of the right man is important. Further, industries must be approached through the "profit" motive. Industry must see some advantage to working with a school system. We must assess our own capabilities in the light of industrial needs and devise a program jointly with industry. All of this will be a venture for the fall. There are several implications to this effort:

1. Just how far can Willingboro go in this direction and how far do we want to go considering that our high schools are comprehensive and not vocational.
2. Perhaps we would like to plan with Burlington County College as well. The administrative staff should make some decisions so as to give a direction.

The last three days of the workshop were concerned with Research Utilization in Problem Solving (RUPS). The RUPS program was developed by the Northwestern Regional Laboratory. I have in my possession the materials for a workshop. The RUPS Training program is designed by the laboratory to increase educators' skills for systematically carrying out a five-step method of problem solving.

1. Identify the problem
2. Diagnose the problem situation
3. Consider alternative actions
4. Try out a plan of action
5. Adopt the plan

It has been found by the laboratory that teachers and administrators who completed a workshop could implement immediately the materials and procedures to conduct training for others. As a result 2,094 educators in the northwest were trained during the past school year.

Dick Smith and I have the complete packet of materials, and since the directions are so simple we can conduct a workshop for administrators. The format demands that this be done in multiples of six (6) starting with the minimum number of twelve (12) people. The length of the workshop is approximately thirty (30) working hours. I would strongly recommend that time be found for this workshop. Its value has been proven. Further information is available on the attached sheet.

TSD:bg

Research Utilization In Problem Solving

Improving Teaching Competencies

Potential

As the repertoire of teaching skills increases, a teacher needs an objective method to determine when and how to apply various teaching strategies in relation to the needs of students. Research will continue to provide data which indicate general guidelines for applying these skills. Teachers need to know procedures for considering the research findings and exploring the implications.

Many educational innovations need to be adapted to fit local needs. The teacher, as an on-the-spot professional decision maker, can insure the realization of this potential for each pupil.

Previous Work

A training design to provide teachers these kinds of skills has been developed over the past four years. Called Research Utilizing Problem Solving (RUPS), the design was initiated by the Cooperative Project for Educational Development at the University of Michigan's Center for Research on the Utilization of Scientific Knowledge.

Leaders and principals trained together responded with high enthusiasm. Data gathered by trainees carrying out improvement projects as they learned the process indicated beneficial effects for pupils. Central administrators reacted by requesting that they, too, be involved in this training.

A one-week version of the design was used at the annual convention of the National Association of Classroom Teachers. The 100 teachers involved were extremely positive in their reactions. Data collected six months later indicated most had been active in applying the skills.

Plan

The RUPS training design is being further developed by the Laboratory. Objectives of the training design are to increase educators' skills for systematically carrying out a five-step method of problem solving:

- Identify the Problem
- Diagnose the Problem Situation
- Consider Alternative Actions
- Try Out a Plan of Action
- Adapt the Plan

Progress

In testing the prototype instructional system, it was found teachers and administrators who completed a workshop could immediately use the materials and procedures to conduct training for others. As a result, 2,094 educators in the Northwest were trained during the 1968-69 school year.

Variations in the instructional system now are being developed to apply it to specific educational problems:

- Title III coordinators for solving dissemination problems
- Title I advisory committee members

Following the analysis of field test data, the instructional system will be revised.

Product

The instructional system called "Research Utilization in Problem Solving" prepares teachers and administrators to use 19 techniques for defining, analyzing and solving problems.

Providing 20 hours of instruction, the system includes:

- Instructor's Guide—A 42-page manual listing procedures for each unit

- Audiotape—Presentation of a typical educational problem for the participants to solve in developing their skills

- Information Sheets—Nineteen information packets which introduce basic concepts and techniques in the program

- Exercises—Eight exercises and guides for participants to use in building their skills

It is comprised of 13 units:

- Unit 1—Identifying the Problem
- Unit 2—Using Research about the Classroom
- Unit 3—Diagnosing Using Field Force Techniques
- Unit 4—Diagnosing Teamwork Relationships
- Unit 5—Data Gathering Skills
- Unit 6—Selecting Tools for Data Collection
- Unit 7—Spotting the Major Results of Data
- Unit 8—Anchored Trainer Ratings
- Unit 9—The Concept of Feedback
- Unit 10—Deriving Implications of Action Alternatives
- Unit 11—Planning for Action
- Unit 12—Small Group Dynamics
- Unit 13—Planning for Action

The instructional system will be ready for production and dissemination for general use late in 1970.

Program Coordinator:
Dr. Charles Jung

Field Coordinator:
Miss Ruth Emory, NWREL

Northwest
Regional
Educational
Laboratory

What Is It?

The instructional program increases the capabilities of school personnel—both teachers and administrators—for identifying and solving problems.

The program consists of 20 hours of instruction.

The materials and step-by-step procedures are organized into 13 units of instruction.

- Unit 1—Identifying the Problem
- Unit 2—Using Research about the Classroom
- Unit 3—Diagnosing Using Field Force Techniques
- Unit 4—Diagnosing Teamwork Relationships
- Unit 5—Data Gathering Skills
- Unit 6—Selecting Tools for Data Collection
- Unit 7—Spotting the Major Results of Data
- Unit 8—Anchored Trainer Ratings
- Unit 9—The Concept of Feedback
- Unit 10—Deriving Implications and Action Alternatives
- Unit 11—Planning for Action
- Unit 12—Small Group Dynamics
- Unit 13—Planning for Action

The materials include:

Instructors' Guide—A 42-page manual listing the function, objectives, procedure and rationale for each unit

Audiotape—"Teacher Jones" provides a typical educational problem for the participants to solve in developing their skills

Information Sheets—Nineteen information packets introduce basic concepts and techniques in the program

1. Force Field Technique of Diagnosing a Problem, 7 pages
2. Classroom Conditions which Influence the Learning Experience of Children, 2 pages
3. Teacher Jones' Problem, 1 page
4. Research Utilization Problem Solving Model for Educational Change, 1 page
5. Gathering Data, 3 pages
6. Tools for Data Gathering, 1 page
7. Children's Responses in Six Tools Used by the Teacher, 7 pages
8. Major Results of Teachers' Data, 1 page
9. Guide for Anchored Trainer Ratings, 2 pages
10. The Concept of Feedback, 4 pages
11. Deriving Implications, 2 pages
12. Implications Derived from the Teachers' Data Results, 1 page
13. Alternative Action Plan, 1 page
14. Five Resources in Planning and Taking Action, 2 pages
15. Organizational and Community Conditions which Influence the Learning Experiences of Children, 2 pages

16. Five Dimensions of Group Growth, 2 pages
 17. Rating Scales for the Growth of Our Group, 2 pages
 18. Model for Acting Out the RUPS Model, 3 pages
 19. Evaluation Exercise, 1 page
- Exercises**—Eight exercises and guides are provided for the participants to use in building their skills

The RUPS training design was initiated through the Cooperative Project for Educational Development at the University of Michigan, a project supported by the U.S. Office of Education.

The Northwest Regional Educational Laboratory is further developing the materials and exploring alternative methods of providing the instruction.

Who Can Use It?

Educators in colleges, universities, State Departments of Education and schools are being trained to provide the instruction for school personnel.

The instruction is appropriate for school administrators and teachers of all subjects in all grades.

How Does It Work?

The instructional program is built around the five steps in solving a problem. The units provide capabilities for systematically carrying out each step:

1. Identifying the Problem
2. Diagnosing the Problem Situation
3. Considering Alternative Actions
4. Trying Out a Plan of Action
5. Adapting the Plan

Each skill is learned by working in a small group, which simultaneously develops teamwork skills.

When Will It Be Available?

Work on the basic instructional program will be completed in the fall of 1968 and instructors can be trained rapidly. A dissemination plan is being devised to make the instruction available to all school personnel in 1971.

APPENDIX C

LEARNING PACKET #1

"INDIVIDUALIZED INSTRUCTION"



INDIVIDUALIZED INSTRUCTION

L.P. #1

CONCEPT- - - - - Individualized Instruction

PURPOSE- - - - - Educators are encouraged to develop techniques of Individual Instruction to provide meaningful and realistic learning experiences for the students. The rote learning experiences of the traditional curriculum with their emphasis upon the acquisition of factual knowledge can no longer be justified in the preparation of the students of today for participation in tomorrow's world. Therefore, it is incumbent upon the teachers of today to implement methods and procedures that will afford the students every opportunity to develop fully in terms of their particular interests, abilities, and objectives.

WILLINGBORO PUBLIC SCHOOLS

L.P.#1

Learning Packet No. 1

"Individualized Instruction"

PRE-Test

NAME _____ DATE _____

DIRECTIONS: List five characteristics of an individualized instructional program of education; discuss each with the instructor to determine the structure and function of these characteristics and their relationship to the learning process. The accuracy level for this test is 100%

1.

2.

3.

4.

5.

L.P.#1

BEHAVIORAL OBJECTIVE - - - - -

The Participant will list five characteristics of an individualized program of education and discuss each with an instructor to determine the structure and function of these characteristics in their relationship to the learning process, the accuracy level for this objective being 100%.

LEARNING ACTIVITIES: - - - - -

1. "Developing Individualized Instruction Through Behavioral Objectives" Segment #1
2. Audio Cassettes #1 - "Individualized Instruction"
3. Overlays #1 and #2 - "Individualized Instruction"
4. "Individualized Instruction in Action" - videotape
5. Plateau group discussion - staff members & Department Chairman.
6. Vimcet filmstrip/audio tape - "Systematic Instructional Decision-making"

POST-TEST - - - - -

(See instructor)

ENRICHMENT - - - - -

1. "Realms of Meaning" - Phenix, Chap 1
2. "The Saber-Toothed Curriculum" - Peddiwell
3. "The Process of Education" - Bruner, Chap 2

WILLINGBORO PUBLIC SCHOOL

L.P.#1

Learning Packet No. 1

"Individualized Instruction"

POST-TEST

NAME _____

DATE _____

DIRECTIONS: List five characteristics of an individualized instructional program of education; discuss each with the instructor to determine the structure and function of these characteristics in their relationship to the learning process. The accuracy level for this test is 100%.

1.

2.

3.

4.

5.

LEARNING PACKET #2

"THE STRUCTURE AND FORMAT OF AN INSTRUCTIONAL LEARNING PACKAGE"



INSTRUCTIONAL LEARNING PACKAGE

L.P. #2

CONCEPT- - - - - The Structure and format of an
Instructional Learning Package.

PURPOSE- - - - - The Instructional Learning Package is an
educational tool by which individualized
instruction in the classroom can be im-
plemented. The package satisfies many of
the basic needs for the individual student
by providing opportunities for self-direc-
tion, free selection, enrichment, and
varied learning procedures among other
things. The learning package is linked
to a systems approach to education by its
basic sense.

Learning Packet No. 2

"Instructional Package: Format"

PRE-TEST

NAME _____ DATE _____

1. Be sure that you are able to identify the interfacing of the following terms with a sound learning program:

PACING
LEARNING TRACKS
ENRICHMENT

2. List three activities carried out by the students that make their association with the learning process more realistic:

a. _____
b. _____
c. _____

3. It is essential that a learning package has certain characteristics to be functional with large groups of self-directed students. Name three:

a. _____
b. _____
c. _____

4. We have suggested a possible format of seven steps in the construction of a Learning Package. How many can you name?

a. _____
b. _____
c. _____
d. _____
e. _____
f. _____
g. _____

5. If you had to leave one step of the format out, which one would it be?

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L.P.#2

Learning Packet No. 2

"The Instructional Package: Format"

PRE-TEST C

NAME _____ DATE _____

DIRECTIONS: List in writing the seven parts of the suggested package format and describe orally the basic premise for the use of each at an accuracy level of 85%.

1.

2.

3.

4.

5.

6.

7.

BEHAVIORAL OBJECTIVES- - - - -

The student will list in writing the seven parts of the suggested package forms and describe orally the basic premise for the use of each at an accuracy level of 85%.

SUB OBJECTIVES- - - - -

1. The student will list in writing five factors of the learning package that provide opportunities for realistic learning activities at 80% accuracy.
2. Given the concept of a learning package pre-test, the student will discuss orally the function of the pre-test to the satisfaction of the instructor.

LEARNING ACTIVITIES- - - - -

1. "Individualized Instruction Through Behavioral Objectives and Learning Packages," Segment II
2. "Working With Individualized Instruction," Esbensen pp. 1-3
3. "Developing Attitude Toward Learning," Mager, pp. 3-12
4. "Innovation in Education," CED, Chap. 3
5. Audio Cassett #2 - "Individualized Instruction" - LRC
6. Overhead Projector Overlay # 2a, 2b - "Individualized Instruction" - LRC
7. Videotape #2 - "Individualized Instruction"
8. A Learning Packat on How to Make a Learning Packet.
9. Group Interaction plateau meeting.

POST-TEST (See instructor)

ENRICHMENT

1. Review instructional package samples.
2. How to Write a Learning Packet - instructor

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L.P.# 2

Learning Packet No. 2

"The Instructional Package: Format"

POST-TEST - Part A

NAME _____ DATE _____

DIRECTIONS: List in writing five factors of a learning package that provide opportunities for realistic learning activities at 80% accuracy.

1.

2.

3.

4.

5.

POST-TEST - Part B

DIRECTIONS:

Please discuss with your instruction, to his satisfaction, the function of the pre-test.

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L.P. #2

Learning Packet No. 2

"The Instructional Package: Format"

POST-TEST - Part C

NAME _____ DATE _____

DIRECTIONS: List in writing the seven parts of the suggested package format and describe orally the basic premise for the use of each at an accuracy level of 85%.

1.

2.

3.

4.

5.

6.

7.

LEARNING PACKET #3

"A CONCEPT"



THE CONCEPT

L.P. #3

CONCEPT- - - - - A concept

PURPOSE- - - - - By stating those things you want
to teach your students in concepts,
they will help to clarify in your
mind as well as in your student's
minds your instructional intent.

PRE TEST- - - - -

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L.P. #3

Pre and Post-Test on Learning Packet #3

"CONCEPTS"

NAME _____ DATE _____

DIRECTIONS: List ten concepts relative to your discipline that you are now teaching. An accuracy of 100% is necessary to successfully complete this test.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

L.P.#3

BEHAVIORAL OBJECTIVE

The student will list in writing ten concepts.

These concepts must not be too broad or too narrow. The ten concepts must relate to the student's specific discipline. The accuracy level is 100%.

Learning activities-----

1. "A Learning Packet on How to Make a Learning Packet" - Unit on concepts
2. The Conditions of Learning by Robert Gagne
3. Overhead projector overlay
4. Segment - "The Meaning of The Word Concept" - O'Donnell
5. Group interaction
6. Department Conferences - Department Chairman

"The Concept"

This segment was written for two purposes: (1) To help give you a better understanding as to the meaning or definition of the term concept; and (2) why concepts are a very important part of the student's learning packet.

Purpose Number One

In Learning Packet No. 5 you will learn how to write a behavioral objective. When you begin writing behavioral objectives you will be informing the student that he is going to have to perform or behave in a certain way to prove that he has learned whatever it was you wanted him to learn in the objective. This thing that you want him to learn in the objective is called a concept or a sub-concept. Although you may have heard many definitions of the word concept and you may have your own definitions of the word concept, ^{now} we want you to use the following meaning or definition in our systems approach for instruction: A Concept is a single learnable idea, skill, or attitude. Following are some examples of how a concept can be classified as an idea, skill or attitude.

The noun is a concept, It was someone's idea to call that word which names a person, place or thing a noun. Our purpose for teaching this concept to students is for them to get this idea or concept that a word which is used to name a person, place, or thing

L.P.#3

in a sentence is called a noun. By the way, an objective written for this concept would fall into the cognitive domain. This is the reason we say a concept can be a single learnable idea.

How can a skill be classified as a concept? Dribbling a basketball is a concept. It was someone's idea that in order to make the game of basketball more challenging and interesting the player would have to slap, or should it be push, the ball down in front of him every time he takes a step in moving with the ball. Dribbling a basketball, because of the necessity for eye, hand and feet coordination is then classified as a skill. Although you may have part of this concept of dribbling a basketball by observing someone else dribble, you will never have the full concept ~~of~~ skill of dribbling until you actually learn how to do it. By the way, an objective written for this concept would be classified in the psycho-motor domain. That is why we say a concept can also be a skill.

How can an attitude be classified as a concept? Civic responsibility is a concept. It was someone's idea that those people who are active, in constructive and positive ways, to make their community a better place to live are people who demonstrate civic responsibility. Our purpose for teaching this concept to students would be to develop a better attitude in relation to making their community a better place in which to live. By the way, an objective written for this concept would fall into the Affective Domain. That is the reason we say a concept can be an attitude.

In summary, I want to paraphrase a statement from your Learning Packet on How to Make A Learning Packet: What's a concept? You can find many definitions each with its own bias. We've tried to work out a simple one that might not be acceptable by all learning psychologists, but which we think is useful for teachers:

A Concept is a Learnable Idea. We use the word idea for the sake of simplicity since we want learning packages to include the cognitive, the psycho-motor and the affective, then we really mean

A concept (in our terms) is a single learnable idea

(Example: The noun), skill (Example: Dribbling a

Basketball) or attitude (Example: Civic Responsibility).

Let us now go to purpose number two. Why is it necessary for us to state the concept in the learning packet and especially at the very beginning of the packet? As you are probably aware, the state and local boards of Education have the responsibility for establishing the broad educational goals for our school district. They in turn have given us as teachers the responsibility of using the kind of instructional plan which will help students reach these goals. It, therefore, would seem to me, that we must decide what are those specific things (concepts) that we want our boys and girls to learn which will be relevant and meaningful to them so they may reach or obtain the broad educational goals the community has established for them.

A student has the right to know, and we as teachers have an obligation to inform him what it is specifically we want him to learn in order that he may be able to come to a self-realization and be an effective citizen in a democratic society. To carry this two steps further, we also have an obligation to give him a purpose for learning the concept, and state specifically what kind of behavior or performance is expected of him so he will know when he has been successful.

In stating your concepts, please be careful that you do not state them so broadly that they will be so complex that you and your students will get lost in the process of reaching them. Example: "The noun" is a broad general concept. If you wanted to teach every aspect of the noun in one learning packet, you certainly would run into problems. Along with this, it may not be educationally sound to teach every aspect of the noun in one period of time. You and your students would probably be better off if you broke the concept of "the noun" down into sub-concepts. As an example, you may want to teach or develop a packet around just the concept of the "common and proper noun."

You also should be careful that you do not make your concept too narrow. As an example, if you selected "The question mark" as a concept, you may find there may not be enough substance to this concept, ~~to make it meaningful for the students.~~ To reinforce what I have stated, please refer to your "Learning Packet on How to Make a Learning Packet."

L.P.#3

If, as you work with concepts, better definitions, explanations or examples occur to you, I would appreciate hearing from you so that this presentation can be improved and up-dated. Please send your information to:

Joseph O'Donnell, Vice Principal
Abraham Levitt Junior High School
Salem Road
Willingboro, New Jersey 08046

LEARNING PACKET #4

"HOW TO WRITE A STATEMENT OF PURPOSE.

STUDENT'S PURPOSE FOR LEARNING THE CONCEPT"



STATING PURPOSES

L.P.#4

CONCEPT - - - - - How to Write a Statement of Purpose.
Student's purpose for learning the
concept.

PURPOSE- - - - - If we are going to tell students we
want them to learn concepts, it
would seem that it would be necessary
to give them a reason for doing so.
Before you begin to write behavioral
objectives for a concept, some thought
must be given as to why a student needs
to and should want to learn the concept.
We, as teachers, usually know the
purpose for having students learn con-
cepts, So often, however, students
con't know that purpose.

WILLINGBORO PUBLIC SCHOOLS

L.P.#4

Learning Packet No. 4

PRE-TEST

NAME _____ DATE _____

DIRECTIONS: List five concepts that you teach your students and write a student's purpose for learning each of the five concepts.

1. Concept

Purpose

2. Concept

Purpose

3. Concept

Purpose

4. Concept

Purpose

5. Concept

Purpose

BEHAVIORAL OBJECTIVE- - - - -

The participant is to list on a sheet of paper five concepts which he is presently teaching and state in writing a student's purpose for learning each of the concepts. This is to be done to the satisfaction of the instructor.

LEARNING ACTIVITIES: - - - - -

1. Segment on stating purposes - O'Donnell
2. Some examples of concepts and purposes
3. Worksheet - L.P. #4

POST TEST- - - - - (See instructor)

ENRICHMENT- - - - -

1. The Saber-Toothed Curriculum - Peddwell
2. Discuss purposes for learning with your students.

STATING PURPOSES

L. P. # 4

You have heard students from other teachers' classes make statements such as: "I don't know why I need to know the gender of nouns." "Why do I have to learn to write paragraphs?" There may be instances where some concepts have no relevance to the student's educational program. If we can't state a purpose which is meaningful to the student, then, perhaps, the concept doesn't belong in our **LEARNING PACKET**.

Let's assume you have written the following concept:

"The Paragraph"

What meaningful purpose could you give a youngster to indicate the necessity for him to learn this concept? The following might do:

"If you, the reader of this purpose, learn how to construct a paragraph, you are going to be able to indicate clearly the process by which your main idea is expressed, expanded and related to another idea."

"Since stories, essays, reports, letters and written work, generally, consist of a series of related paragraphs, knowing the concept of the paragraph will be helpful in interpreting other people's writing to understand how they code their thoughts. It will also, most certainly, help others to understand your reasoning if you present your thoughts in writing in a logical manner."

Does this purpose get the message across? Maybe you can do better. Let's give it a try.

SOME CONCEPTS AND PURPOSES

Concept -----The Planets

Purpose----- With the advent of space travel, an awareness of the planets becomes increasingly important to everyone. Although most people will never set foot into a space craft, let alone on another world, we all become involved in two important ways. The first is through our tax dollars. We must decide whether or not exploration of the planets is worth the funds spent to achieve the various space goals. You cannot honestly make that decision unless you understand at least the basic facts about the planets. The second is through television broadcasts from outer space. This is your real link with space exploration. If you understand the planets, then, any broadcasts from these other worlds will be much more meaningful to you. These are just the important reasons for studying the planets. As a space age citizen, it is your duty to learn all you can about space and the worlds that are in it.

SOME CONCEPTS AND PURPOSES

Concept - - - - - Space Travel

Purpose - - - - - Man has spent much in time, effort, and money to show that space travel is possible. Now we must decide whether it is useful and worthwhile. In the very near future you will be involved as a taxpayer in deciding on this issue. To help you make this decision, you should understand what space travel is and how it can be used!!

Concept- - - - - The auxiliary or "helping verb"

Purpose- - - - - By knowing how to use the auxiliary verb you can add important shades of meaning to the verbs you use. By using certain auxiliaries, you can give time to verbs, change

them from active to the passive voice and change sentences from statements to questions.

Concept- - - - -The problem of drugs and nar-
cotics used in our society today

Purpose - - - - - Drugs and narcotics have become a serious problem in our communities. This problem calls for a war of prevention, treatment and cure. We must start with clear information so that we know what we are talking about. It is essential that each student learn the effects of these agents upon his mental and physical being in the hope of forestalling recourse to drugs.

Concept - - - - - Smoking

Purpose - - - - - Smoking is a proven hazard to one's health. It is essential to present all facts so as to keep the student from starting

L. P. # 4

the smoking habit and to encourage
these who already smoke to stop.

Concept - - - - - Folk Dancing

Purpose - - - - - "Young and old, rich and poor,
people of every walk of life, every
religion, and every nationality,
are represented at the usual com-
munity folk dance gathering. The
reason; folk dancing is easy, and
anyone can do it! As one of
America's leading recreational
activities, it can bring countless
hours of relaxation and pleasure
to you and to the American Community."
So, let's circle-up!

Concept - - - - - The metaphor

Purpose - - - - - If you are able to recognize the
metaphor you will be able to grasp
the figurative message of a piece
of literature and get more enjoy-
ment from it. It will also assist
you to enrich your own language
through the use of the metaphor.

WORKSHEET - LEARNING PACKET #4

1. Write three concepts that you are planning to teach in one of your courses.

Concept 1 _____

Concept 2 _____

Concept 3 _____

2. Write a purpose for each of the above concepts which will be meaningful to the student who will be learning the concept.

Purpose: 1 _____

Purpose: 2 _____

Purpose: 3 _____

L.P.#4

LEARNING PACKET NO. 4

STATING PURPOSES

POST-TEST

NAME _____ DATE _____

DIRECTIONS: List five concepts that you teach your students and write a student's purpose for learning each of the five concepts.

1. Concept

Purpose

2. Concept

Purpose

3. Concept

Purpose

4. Concept

Purpose

5. Concept

Purpose

LEARNING PACKET #5

"THE BEHAVIORAL OBJECTIVE STRUCTURE"



BEHAVIORAL OBJECTIVE: STRUCTURE

L.P.#5

CONCEPT- - - - - The Behavioral Objective Structure

PURPOSE- - - - - In order to write sound objectives,
it is necessary for the teacher to
be able to differentiate between
educational goals and instructional
objectives. It is also necessary to
be able to identify the basic compo-
nent parts of a sound objective so
that the skill of writing objectives
is further enhanced. In Segment #5,
the teacher is introduced to structure
of the Behavioral Objective to fortify
his awareness before actually writing
objectives.

WILLINGBORO PUBLIC SCHOOLS

L.P.#5

Learning Packet No. 5

BEHAVIORAL OBJECTIVES, STRUCTURE

Pre-Test

NAME _____ DATE _____

1. Check the action verbs you think are measurable: (90%)

- | | |
|-------------------------------------|--|
| _____ 1. will identify by selecting | _____ 6. will be interested in |
| _____ 2. will understand | _____ 7. will operate |
| _____ 3. will check the box | _____ 8. will appreciate the sound |
| _____ 4. will really know why | _____ 9. will list on paper |
| _____ 5. will recite aloud | _____ 10. will have a proper attitude toward |

2. Name the 3 most important characteristics of a Behavioral objective: (100%)

_____ ; _____ ; _____

3. Beside each of the following samples, write P, C, or A indicating performance, conditions, or accuracy as that characteristic of the Behavioral Objective being cited: (80%)

- | | |
|-------|---|
| _____ | 1. "Given a list of" |
| _____ | 2. "From the 3 statements on this page the student" |
| _____ | 3. "With not more than 3 errors" |
| _____ | 4. "The student will apply the formula to" |
| _____ | 5. "Will be operated 3 times by student" |

4. Write two behavioral objectives; draw one line under the
- Performance
- portion and two lines under the
- conditions
- portion. each objective - accuracy level 100%

a. _____

b. _____

5. Define the following: 100%

a. Performance _____

b. Conditions _____

c. Accuracy _____

BEHAVIORAL OBJECTIVE- - - - -

Given the concept of the Behavioral Objective, the student will state orally the three basic parts of the sound objective and describe orally to the satisfaction of the instructor the basic function of each part.

SUB OBJECTIVES - - - - -

1. Given a list of ten verbs, the student will identify by checking all the verbs which are acceptable for use in behavioral objectives at an accuracy level of 90%.
2. The student will identify the parts of five written objectives by placing a P, C, or A, over that portion of the objective which is performance, conditions, or accuracy. The level of achievement for this exercise is an accuracy of 100%.

LEARNING ACTIVITIES - - - - -

1. Individualized Instruction, op. cit., Segment #5
2. "Preparing Instructional Objectives" Mager, Chap 1. 2.
3. "Developing Attitude Toward Learning", Mager Chap. 3
4. "Innovation in Education, " CED, pp. 32-37
5. "The Process of Education," Bruner Chap. 2
6. "Faculty Course in Educational Technology" Quinn, Chap II
7. "Working With Individualized Instruction, : Esbensen pp. 3-8
8. Audio Cassett #5 "Structure of Behavioral Objectives" - LRC
9. Overhead projector overlay #3a, 3b, 3c - Behavioral Objectives
10. Videotape #5 - Behavioral Objectives: Structure
11. Vimcet Filmstrip - "Educational Objectives"
12. Group interaction plateau meeting

POST-TEST ----- (See Instructor)

ENRICHMENT - - - - -

1. "Developing Attitude Toward Learning" Mager Chap 4, 5, 6

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Learning Packet No. 5

WORK SHEET

THE WONDERFUL WORLD OF BEHAVIORAL OBJECTIVES

It is not easy to write sound behavioral objectives. Before you can write them, you must be able to recognize behavioral objectives. Please complete the following objective:

The student will identify from a list of five statements those statements which fulfill the qualifications of a good behavioral objective by placing a yes in the space provided next to the statement at 80% accuracy.

- | | |
|-------|--|
| _____ | 1. Given a list of twenty history questions, the student will answer the questions correctly at 90% accuracy. |
| _____ | 2. The student will identify correctly the irregular verbs in a written paragraph by placing an X over the verb. |
| _____ | 3. The student will be able to recognize acute angles from a series of geometric figures at 85% accuracy. |
| _____ | 4. Given a tape recording which includes the sound of five brass instruments, the student will know them at 100% accuracy. |
| _____ | 5. By spending a morning in a magistrates court, the student will gain an appreciation of the due process of law from his observance of the court proceedings. |

SELF EVALUATION

- I. The use of acceptable action verbs is very important to the development of behaviorally-state objectives. Put a check mark next to those words you think are measurable:

_____ will enjoy	_____ will determine
_____ will recit	_____ will deduce
_____ will list	_____ will name
_____ will contrast	_____ will discuss
_____ will know	_____ will apply the formula

- II. In order for a behavioral objective to be meaningful in all aspects, there are three characteristics that must be prevalent:
- _____

- III, Beside each of the following examples, write P, C, OR A indicating performance, conditions or accuracy as that characteristic of a behavioral objective being cited:

- _____ 1. "with no more than three errors for the exercise."
- _____ 2. "the student will identify by marking a check..."
- _____ 3. "at an efficiency of 80%."
- _____ 4. "given twenty sentences in the nominative case..."
- _____ 5. "the proper count will be identified by the student..."

- IV. Write a behavioral objective in the space below which calls for the identification of Republican Presidents from a list provided.
- _____

- V. Write a behavioral objective in the space below which calls for the solving of division of fractions in an exercise.
- _____

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L.P. #5

Learning Packet No. 5

"BEHAVIORAL OBJECTIVES"

POST-TEST A

NAME _____ DATE _____

DIRECTIONS: Listed below are ten verbs. Check the verbs in the spaces provided that are acceptable for use in behavioral objectives. An accuracy level of 90% is needed to pass this test.

<u>Verbs</u>	<u>Check Column (✓)</u>
1. select	_____
2. know	_____
3. name	_____
4. comprehend	_____
5. compare	_____
6. digest	_____
7. order	_____
8. realize	_____
9. list	_____
10. perceive	_____

POST - TEST B

Directions: Listed below are five behavioral objectives. Please identify by placing a P, C, or A, over that portion of the objective which is performance, condition, or accuracy. The level of achievement for this test is 85%.

1. Given the necessary materials, the student will construct a collage representing the theme of Autumn to the Satisfaction of the instructor.

(continued next page)

Post-Test B (Continued)

2. Given ten problems of division in decimal numbers, the student will place the decimal point in the proper place in the dividend at 100% accuracy.
3. The student will list on a sheet of paper the five factors necessary to complete a proper bibliographical reference to be used in a research paper at 100% accuracy.
4. Given a list of twenty verbs, the student will select only those verbs which can be used in writing behavioral objectives within a period of five minutes.
5. Given 40 nouns in sentences, you will identify each common noun by underlining it once, and each proper noun by underlining it twice in 15 minutes with 90% accuracy.

POST-TEST C

DIRECTION: State orally to the instructor the three basic parts of the sound objective and describe orally to his satisfaction the basic function of each part.

LEARNING PACKET #6

"THE DEVELOPMENT OF BEHAVIORALLY-STATED OBJECTIVES"



L. P. #6

PURPOSE- - - - - One of the prime considerations of any behavioral objective is that it be precise in its meaning and consistent in its interpretation. The objective must mean the same thing to teacher, student, or anyone else involved. In addition to the skill of defining component parts, the writer of behavioral objectives must also utilize terminology that will leave no doubt in the mind of the reader exactly what is expected of terminal behavior.

Learning Packet No. 6

PRE-TEST

NAME _____ DATE _____

1. List the three basic characteristics of the sound behavioral objectives:
 - a. _____
 - b. _____
 - c. _____
2. Write five terms which are proper action words that can be used with behavioral statements in constructing an objective:
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
3. List three common words used to signify educational goals in an effective sense:
 - a. _____
 - b. _____
 - c. _____
4. In constructing a behavioral objective, the emphasis is always placed upon what the student _____.
5. Identify the following parts of a behavioral objective in terms of CONDITIONS, PERFORMANCE, OR ACCURACY: (C, P, A)
 - _____ a. The study will use a plane to square the board of proper dimensions.
 - _____ b. the level of achievement being 80%
 - _____ c. A paragraph will be written which includes a description of two characters of opposite personality.
 - _____ d. Given a pair of calipers and a turned piece of wood dowel.
 - _____ e. This being accomplished to the satisfaction of the student committee.
6. Which of the following statements fulfills all the requirements of a sound behavioral objective?
 - a. The student will understand the steps involved in operating the band saw correctly at an accuracy of 100%.
 - b. Given a radio with one deficient tube, the student will fix it.
 - c. The student will write a poem dealing with the concept of love.
 - d. Given a blueprint drawing of a bookshelf, the student will construct the bookshelf from 3/4" white pine to an efficient accepted by the instructor.

BEHAVIORAL OBJECTIVE - - - - -

Given a common learning concept used widely in education, the student will write the Performance, Conditions, and Accuracy, factors for a Behavioral Objective to satisfy this concept. This is to be done to the satisfaction of the instructor.

SUB OBJECTIVES - - - - -

1. Given five prepared objectives, the student will determine which factors are missing from the objective in terms of performance, conditions and accuracy. The degree of accuracy is 100%.
2. Given statements (5) of performance, the student will add factors of conditions and accuracy to make the statements complete Behavioral Objectives at 100% accuracy.

LEARNING ACTIVITIES - - - - -

1. Individualized Instruction, op. cit., Segment #6
2. Preparing Instructional Objectives, Mager, Chap. 4,5
3. Faculty Course in Educ. Tech., Quinn, pp. 11-13
4. Reprint: "Performance Objectives" Esbensen, part I
5. "Developing Vocational Instruction" Mager & Beach, Chap I
6. Audio Cassette Tape - \$6 "Developing Behavioral Objectives"
7. Overhead projector overlays - #6a, 6b, 6c - behavioral objectives
8. Videotape #6 "Developing Behavioral Objectives"
9. Vimcet Filmstrip "Selecting Appropriate Educational Objectives"
10. Worksheet on Behavioral Objectives
11. Worksheet on Behavioral Objectives
12. Plateau meeting, Group Interaction

POST-TEST - - - - -

(See instructor)

ENRICHMENT- - - - -

1. "Developing attitude toward Learning" - Mager Chap. 8
2. Vimcet Filmstrip: "Identifying Affective Objectives"

WILLINGBORO PUBLIC SCHOOLS
Learning Packet #6
BEHAVIORAL OBJECTIVES
Work Sheet

L.P. #6

NAME _____ DATE _____

Listed below are ten statements for your analysis and scrutiny. As you give your explicit attention to them, decide two things: (1) if it is stated in behavioral terms, circle yes. Otherwise, circle no; and (2) if you circle no, write on the line provided the item that is missing of the three essential items necessary for a good behavioral objective.

1. Given a list of novels of the eighteenth century that were written in England the student will recognize the work of Defoe at 90% accuracy.
YES NO _____
2. The student will hem a skirt of cotton material using a student model at exactly 24" from the floor the entire circumference of the skirt to the satisfaction of the instructor.
YES NO _____
3. Given a column of twenty fractions, the student will at 90% accuracy reduce all the fractions to their lowest terms or circle the fractions which cannot be reduced.
YES NO _____
4. Given a list of twenty presidents of the United States, the student will pick out those presidents that were Republican and those that were Democrats to the satisfaction of the instructor.
YES NO _____
5. Given the reference of a Byzantine mosaic, the student will draw an impression of a city skyline using this Byzantine type of expression to the satisfaction of the instructor.
YES NO _____
6. The student will divide a board into equal lengths using the proper tools in a time span of five minutes.
YES NO _____
7. Given an identified Mozart recording of music, the student will improvise in written form a short paragraph describing a scene to fit the mood of the music to the satisfaction of the instructor.
YES NO _____
8. The student will be able to differentiate between plants and animals at 85% accuracy by labeling slides with a P or an A using prepared slides and a microscope in the laboratory.
YES NO _____
9. Given two columns of poetry with tentlines in each column, the student will be able to match the proper lines by meter and rhyme.
YES NO _____
10. Given ten spanish idioms used frequently in discussion, the student will write the correct translation at 90% accuracy.
YES NO _____

NO WONDER OUR STUDENTS ARE CONFUSED!!!

WILLINGBORO PUBLIC SCHOOLS

L.P.# 6

Learning Packet #6

"BEHAVIORAL OBJECTIVES: RECOGNITION AND DEVELOPMENT"

Post Test Part A

NAME _____

DATE _____

DIRECTIONS: Listed below are five prepared objectives. Determine which factors are missing from the objectives in terms of performance, conditions, and accuracy. The degree of accuracy is 100%. Write P, C, or A for the factor or factors missing in each objective.

1. _____ Given a choice of definitions of verbs, choose verbs that are action verbs.
2. _____ Given a list of pronouns, the student will know the use of pronouns to a degree of 100% accuracy.
3. _____ The student will select the pronouns with 100% accuracy.
4. _____ The student will be able to identify 9 verbs from 15 words.
5. _____ Given a list of 15 verbs, the student must score at least 90%.

Post Test Part B

DIRECTIONS: Below is a list of 5 statements describing performance. Add the factors of conditions and accuracy to make the statements complete behavioral objectives at 100% accuracy.

- 1..... select 5 action verbs from 15 words.
- 2..... to orally name 5 states
- 3..... to spell correctly 10 words
- 4..... to repair the radio
- 5..... to write a behavioral objective

WILLINGBORO PUBLIC SCHOOLS
Learning Packet #6

I.P.#6

"Behavioral Objectives: Development"

Post Test Part C

NAME _____ DATE _____

DIRECTIONS: Following is a concept that is used in education:
The common and proper noun. Please write the performance, conditions and accuracy factors for a Behavioral Objective to cover this concept to the satisfaction of your instructor. If this concept does not satisfy you use your own.

LEARNING PACKET #7

"SAMPLE DISCIPLINARY OBJECTIVES"



SAMPLE DISCIPLINARY OBJECTIVES

L.P.#7

CONCEPT- - - - -Sample Disciplinary Objectives

PURPOSE- - - - - The behavioral objective is a statement of instructional intent to support an accepted educational goal. The goal might well be the understanding, appreciation, or knowledge of some concept or skill, but objectives must be written in more explicit terms than those just mentioned. Once a particular concept or skill is identified as acceptable to a learning program, then the teacher will be able to use a recommended structure and particular terminology to successfully produce a satisfactory behavioral objective for any discipline.

PRE-TEST- - - - -

BEHAVIORAL OBJECTIVE- - - - -

The student will select an educational goal, choose a concept or skill in support of that goal, then write a sound Behavioral Objective to bring about the desired behavior change, the accuracy level being 100% in this exercise.

SUB OBJECTIVES- - - - -

1. The student will construct three sample Behavioral Objectives for the disciplinary area he works with which fulfill all the qualifications for a sound objective at 100% accuracy.
2. Given a concept in his subject area, the student will write a sound objective for the concept to the satisfaction of the instructor.

LEARNING ACTIVITIES- - - - -

1. Individual Instruction, op. cit., Segment #6
2. Preparing Instructional Obj. op. cit., Mager Chap 6
3. Developing Attitude Toward Learning, op. cit., Mager, Chap 6
4. Audio Cassette tape #6 "Sample Objectives"
5. Overhead Projector overlays, 6a, 6b, 6c, - Sample Objectives
6. Vincet: "Defining Content for Objectives"
7. Workshop: Disciplinary Dept. Chairmen assistance
8. Group interaction plateau meeting

POST-TEST- - - - -

(See instructor

ENRICHMENT- - - - -

1. Vincet: Developing Affective Objectives
2. Taxonomy of Educational Objectives - Bloom Cha. 2

WILLINGBORO PUBLIC SCHOOLS

SAMPLE DISCIPLINARY OBJECTIVES

Pre-Test and Post-Test on Learning Packet #7

NAME _____ DATE _____

1. List three goals of education that are related to the area of your discipline or subject:

2. List a concept in support of each of the above goals that should be developed to bring about the desired behavioral outcomes:

3. Write a sound behavioral objective in support of each of the above cited items which fulfill the qualifications of a behaviorally-stated objective:

_____ a.
_____ b.
_____ c.

4. Determine the classification of the above objectives as to being Cognitive or Affective objectives by placing a C or an A in the space provided.

5. Given a disciplinary concept by a staff member, write an objective for that concept fulfilling all the qualifications of a sound objective in that area.

SELF EVALUATION

There are four steps associated with developing a sample behavioral objective in a given discipline. Name them:

It is said that there are advantages to having the teacher develop his or her own objectives rather than to deal in commercial products. Support or deny this statement.

List five valid concepts or skills that you feel are essential to your program and which you would like every student to leave your room having achieved mastery over.

a. _____

d. _____

b. _____

e. _____

c. _____

Write five sample objectives surrounding the above concepts that you have listed. Be sure to include Performance, Conditions, and Accuracy in your structure. Discuss these with the institute staff.

LEARNING PACKET #8

"VERBAL AND MOTOR PERFORMANCE OBJECTIVES"



VERBAL AND MOTOR OBJECTIVES

CONCEPT- - - - - Verbal and Motor Performance
Objectives.

PURPOSE- - - - - As the teacher develops objectives
for his particular disciplinary
field, it will be noted that objec-
tives fall into different areas
according to the type of response
that is initiated by the stimulus
of the objective. The two areas
are verbal and motor skills. It is
extremely important that the teacher
be aware of their purpose in formu-
lating an objective as to whether
they wish to stimulate a verbal or
motor response from the student.
In many cases, teachers will call
for a verbal response in a motor
skill area and visa-versa.

PRE-TEST- - - - -

WILLINGBORO PUBLIC SCHOOLS
Pre-Test Learning Packet
No. 8

L.P.#8

VERBAL AND MOTOR OBJECTIVES

NAME _____ DATE _____

1. List the three kinds of responses to verbal objectives and write a brief definition beside each kind.

2. From the verbs below, determine whether they would apply to verbal or motor skills by placing a "V" or an "M" in the space provided:

_____ a. define	_____ f. recite
_____ b. measure	_____ g. draw
_____ c. infer	_____ h. compare
_____ d. express	_____ i. assemble
_____ e. demonstrate	

3. Name three disciplinary areas where the mastery of motor skills (hence motor skill objectives) would predominate:

4. Write one verbal objective (performance section only) for each of the three kinds of responses to verbal objectives. Identify each in the space provided to the left.

5. Write a motor objective which fulfills all of the qualifications of a sound behaviorally-stated objective.

BEHAVIORAL OBJECTIVE- - - - -

L.P.#8

Given a list of ten statements, the student will identify the verbal objectives and the motor skill objectives by placing a V or an M before each statement. The level of proficiency being 90%.

SUB OBJECTIVES- - - - -

1. Given a list of five intended outcomes to be measured, the student will differentiate the objectives to be used as verbal or motor for each by placing a V or an M beside the listing outcomes at 100% accuracy.
2. The student will list three ways in which a verbal activity can be used to satisfy an objective at 100% accuracy.

LEARNING ACTIVITIES- - - - -

1. Individualized Instruction, op, cit, Segment #8
2. Developing Vocational Instruction, Mager & Beach, Chap. 8
3. Audio Cassette tape - #8 Verbal & Motor Skill Objectives
4. Overhead Project overlay - 8a, 8b - Verbal & Motor Skills
5. Reprint: Determine Verbal and Motor Skills
6. Group interaction plateau meeting

POST TEST- - - - -

(See instructor)

ENRICHMENT- - - - -

1. "Developing Attitude Toward Learning" Mager Chap. 6
2. "Taxonomy of Educational Objectives" Bloom pp 38-43

SELF EVALUATION

L.P.#8

1. From the statements below, determine whether they are verbal or motor skills by placing a V or an M in the space provided:

- _____ a. The student will select the proper noun.....
- _____ b. The student will write a paragraph.....
- _____ c. The student will shape the clay to a cup form.....
- _____ d. The student will select the proper tool.....
- _____ e. The student will recite a given poem using proper inflection....

2. Which of the following is incorrectly used?

- a. The student will list the five steps necessary for proper adjustment of the microscope.....
- b. The student will write a composition on the subject "animals" using the Palmer method of handwriting.....
- c. The student will bisect a 70° angle using a protractor.....

3. Write a motor objective (performance) for using a compass to draw circles.....

4. Write a verbal objective for preparing an outline.....

WILLINGBORO PUBLIC SCHOOLS

L.P.#8

Post-Test on L.P.#8

"VERBAL AND MOTOR OBJECTIVES"

NAME _____ DATE _____

Part A - Sub-objective No. 1

Directions: On the blank lines alongside the 5 verbs below, indicate whether the verbs should apply to verbal or motor skill objectives by writing "V" for verbal and "M" for motor skill. An accuracy of 100% is necessary to pass this part of the test.

1. _____ recite
2. _____ demonstrate
3. _____ define
4. _____ compare
5. _____ assemble

Part B - Sub-objective No. 2

Directions: List three ways, in writing, in which a verbal activity can be used to satisfy a verbal objective. An accuracy of 100% is necessary to pass this part of the test.

1.

2.

3.

Part C - Terminal Objective

Directions: Below is a list of ten statements, identify them by writing "V" for the verbal objectives and "M" for the motor skill objectives on the blank lines alongside the statements. An accuracy of 90% is necessary to pass this part of the test.

1. _____ The student will define in a written paragraph of not more than two hundred words....
2. _____ Given the proper tools, the student will build.....
3. _____ Given 3 visuals illustrating Greek, Roman and Egyptian styles of architecture, the student will identify each by writing the names of the styles on the blank lines....
4. _____ Given three slides, the phylum, the paramecium and the amoeba the student will draw....
5. _____ Given a radio and the proper tools the student will locate the two problems.....
6. _____ The student will demonstrate by voice inflection, giving a short speech of not more than two minutes.....
7. _____ The student will take a five minute timing on the Olympia typewriter.....
8. _____ The student will demonstrate his knowledge of the concept "Behavioral Objective" by writing a behavioral objective.....
9. _____ Given a list of objectives, you will select, with 100% accuracy....
10. _____ The student will write Ohms Law.....

LEARNING PACKET #9
"CRITERIA TEST ITEMS"



CRITERIA TEST ITEMS

L.P.#9

CONCEPT- - - - - Criteria Test Items

PURPOSE- - - - - It is extremely important in the learning program that measurement of achievement can occur at any point along the line. The testing of the student to establish his mastery over a given conceptual area is predicated upon determining his needs and areas of weakness, rather than to rate him in a graded system when we are dealing with individualized instruction. Valid and Reliable criteria test items form an integral part of pre and post tests to provide a continuing validation of learning.

PRE-TEST- - - - -

"CRITERIA TEST ITEMS"

NAME _____ DATE _____

DIRECTIONS: Below are 3 columns: an Objectives column, a Class column, and a Test column. You are to read each objective and then classify it in the blank alongside it as a verbal objective (VO), Motor Objective (MO), or a Discrimination Objective (D). Above the test items indicate by writing "Good" or "Poor" whether the test items matches the performance stated in the objective. Write the criteria test items for 9, 10, and 11.

<u>OBJECTIVES</u>	<u>CLASS</u>	<u>TEST ITEM</u>
1. Will define "gross national produce"	_____	Multiple choice - which of these definitions is correct?
2. Will operate calculator	_____	Explain how to operate a calculator
3. Will write a paragraph containing a clearly identifiable topic sentence	_____	Write a paragraph; identify the topic sentence
4. Will adjust a microscope	_____	Adjust this microscope
5. Will write Ohm's Law	_____	Write Ohm's Law
6. Will explain what a micrometer is used for	_____	Use your micrometer to measure the following
7. Will operate a drill press	_____	Explain operation of a drill press
8. Will explain the basic structure of the atomic nucleus	_____	In this illustration, label the nucleus
9. Will explain function of a prism	_____	_____
10. Will be able to identify paramecium	_____	_____
11. Will explain difference between a <u>civil war</u> and a <u>revolution</u>	_____	_____

BEHAVIORAL OBJECTIVE - - - - -

L.P. #9

Given a sample disciplinary concept or skill, the student will write three criteria test items, each of different format, to test mastery over the given concept or skill, the level of achievement being 100%

SUB OBJECTIVE - - - - -

1. The student will write one criteria test item for each of the categories of verbal selection, verbal discrimination, and motor performance skill at 100% accuracy.

LEARNING ACTIVITIES- - - - -

1. "Preparing Instructional Objectives," Mager, Chap. 6
2. "Developing Vocational Instruction," Mager, Beach, Chap. 7
3. "Faculty Course in Educational Technology," Quinn, Chap. III
4. Individualized Instruction, Segment #9
5. Audio-Cassette Tape #9 - "Criterion Tests"
6. Vimcet Filmstrip - "Establishing Performance Standards"
7. Vimcet Filmstrip - "Analyzing Learning Outcomes"
8. Overhead Projector Overlays - #9a, 9b, Criteria Test Items
9. Test and Measurement Kit - E.T.S.
10. Making Your Own Test - E.T.S.
11. Group interaction plateau meeting.

POST TEST- - - - -

(See instructor)

ENRICHMENT - - - - -

1. Vimcet: "Evaluation"
2. Developing Attitude Toward Learning, Mager, Chap. 9

"CRITERIA TEST ITEMS"

SELF - EVALUATION

1. The two most important aspects of sound criteria test items are the _____ and _____ of the items.
2. The construction of good criterion tests serves to improve the total learning procedure in a number of areas. Name three:
 - a.
 - b.
 - c.
3. The basic design of the criterion test is subject to the influence of WHAT, WHY and HOW. Discuss the relationship of each to the development of the criterion test.
4. How would you test the student for mastery over the steps to be followed in developing a blueprint design?
5. How would you test the student for development of attitude of good citizenship?

POST TEST ON LEARNING PACKET #9
"CRITERIA TEST ITEMS"

L.P.#9

NAME _____ DATE _____

Following is a concept and three behavioral objectives. Read carefully the directions as to what you are to do.

To have successfully completed the test, you must have a score of 100%.

1. Write three criteria test items, each of different format for the following concept: "The common noun and proper noun." If you do not wish to use this concept, use one of your own.
 - a.
 - b.
 - c.
2. Following are three behavioral objectives. Please read them carefully. After you read each one carefully, write a criteria test item.
 - a. Objective - Write a short paragraph of not more than six lines containing a clearly identifiable topic sentence within a period of five minutes. Identify the topic sentence by underlining it.
 1. Criteria Test Item -
 - b. Objective - Given a set of pictures on a sheet of paper which illustrates the hammer, saw, inside calipers, outside calipers, level, chisel, square, and hand drill, the student must identify by writing the name of each on the blank line immediately below the picture within five minutes and with 100% accuracy.
 1. Criteria Test Item -
 - c. Objective - Given a properly functioning audiometer of any model, the student must be able to make the necessary adjustments and control settings within 10 minutes to enable the operator to conduct a standard hearing test.
 1. Criteria Test Item -

LEARNING PACKET #10

"ESBENSEN'S TAXONOMY"



TAXONOMY

L.P. #10

CONCEPT- - - - - Esbensen's Taxonomy

PURPOSE- - - - - A traditional educational setting
relied heavily upon pure recall for
successful achievement. This type
of rote learning provided little for
the individual needs of the student.
In addition, it stifled more complex
intellectual responses based upon
higher levels of the learning process.
It is imperative that my objectives
be continually upgraded to stimulate
more sophisticated intellectual
activity on the part of the student
to be meaningful and realistic in a
learning environment. Taxonomic
application is a method of continual
re-evaluation for education.

PRE-TEST- - - - -

Pre-Test on
Learning Packet #10

"TAXONOMY OF THE LEARNING PROCESS"

NAME _____ DATE _____

Part A

Directions: List below the six levels of Bloom's Taxonomy.

1.

2.

3.

4.

5.

6.

Part B

Directions: Construct in writing four behavioral objectives from a single concept, of your own choosing, one for each level of Esbensen's Taxonomy.

1.

2.

3.

4.

Part C

L.P.#10

Directions: Listed below are five objectives. Label each in writing according to the proper taxonomic level using Esbensen's taxonomy.

1. _____ The student will write the names of the 13 colonies.
2. _____ Given the following emergency situation: You have received a telephone call at 5:00 p. m. today at your office that you must report to Florida by 11:00 p. m. to resolve a problem. The last plane leaves for Florida from Philadelphia at 6:30 p. m. Decide on a plan and then put it within 20 minutes to get you to the plane within 70 minutes. Assume that you are married and must go home to pack a bag. This objective must be accomplished within 20 minutes and your plan must show that you will be able to catch your plane on time.
3. _____ Given Ohm's Law, the student will explain it verbally to the instructor within 5 minutes with an accuracy of 100%.
4. _____ The student, given three sentences that need punctuation with semicolons, will punctuate them and write an explanation as to why he used semicolons.....
5. _____ Given a list of 1500 students who have each selected seven different courses from a list of 125 courses, a course count, a list of 81 teachers, and a list of 50 classrooms, the student will create a master schedule to schedule each student with no more than five conflicts.....

BEHAVIORAL OBJECTIVE- - - - -

Given Esbensen's Taxonomic Scale, the student will construct a Behavioral Objective for each level in writing at 100% accuracy.

SUB OBJECTIVES- - - - -

1. The student will list the six levels of Blooms Taxonomy in writing at an achievement level of 100% accuracy.
2. The student will construct four Behavioral Objectives from a single concept, one for each level of Esbensen's Taxonomy, the achievement level being 100%.
3. The student will label correctly each of five objectives as to the proper taxonomic category at 100% accuracy.

LEARNING ACTIVITIES- - - - -

1. Individualized Instruction, Segment #10
2. Working With Individualized Instruction, Esbensen, pp. 10-14
3. Taxonomy of Educational Objectives, Cognitive Domain, Bloom
4. Taxonomy of Educational Objectives, Affective Domain, Bloom, Appendix
5. Audio - Tape Cassette # 10 "Taxonomy"
6. Overhead Projector Overlays - #10a, 10b, - "Taxonomy"
7. Videotape #5 - "Taxonomy"
8. Vincent - "Identifying Affective Objectives"
9. Group interaction plateau meeting.

POST-TEST- - - - - (See instructor)

ENRICHMENT- - - - -

1. The New Social Studies, Fenton, pp. 10-114; 497-514
2. Realms of Meaning, Phenix, Chap. 21
3. The Analysis of Behavior, Holland and Skinner

SELF EVALUATIVE TEST - TAXONOMY OF EDUCATION

1. The lowest level of learning in our educational taxonomy is_____.
2. "The student will construct his own hypothesis to find the solution to . . ."
Would be an objective on what level of the taxonomy?_____
3. The word perception is a key word in relating to the level of the learning taxonomy known as_____.
4. Selecting and using a particular formula to solve a math problem would be classified as the_____level of the taxonomy.
5. Write an objective in Behavioral Terms for each of the following levels of the taxonomy:
 - A Knowledge:
 - B Comprehension:
 - C Application:
 - D Invention:
6. Justify in oral conversation with a colleague the need for a taxonomy of the learning processes as a method of classifying educational objectives and goals:

L.P.#10

POST-TEST ON
LEARNING PACKET #10

"TAXONOMY OF THE LEARNING PROCESS"

NAME _____ DATE _____

Part A

Directions: List below the six levels of Bloom's Taxonomy.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Part B

Directions: Construct in writing four behavioral objectives from a single concept, of your own choosing, one for each level of Esbensen's Taxonomy.

- 1.
- 2.
- 3.
- 4.

LEARNING PACKET #11

"THE STRUCTURE OF THE TASK ANALYSIS"



STRUCTURE OF THE TASK ANALYSIS

L.P.#11

CONCEPT- - - - -The structure of the Task Analysis

PURPOSE- - - - - The task analysis is a systems mechanism designed to help me take a long hard look at the present classroom program in light of what should be learned and how it should be learned. The Task Analysis will provide criteria in its structure which will enable me to develop a series of essential concepts that will formulate a realistic program of learning in a given discipline. Remember, if I have the concept, I can write the objective for it.

PRE-TEST- - - - -

Pre-Test on
Learning Packet #11

"TASK ANALYSIS STRUCTURE"

NAME _____ DATE _____

Part A

Directions: List in writing each of the three essentials used to measure concepts in the structure of a task analysis.

1.

2.

3.

Part B

Directions: Read the concept for task analysis and construct a task analysis chart below and then categorize according to domain three essential concepts in your related discipline. You are to select a three-man peer group to evaluate your work.

BEHAVIORAL OBJECTIVE - - - - -

Given the concept of the task analysis, the student will construct a task analysis chart categorizing according to domain three essential concepts of his related discipline to the satisfaction of a 3-man peer group.

SUB OBJECTIVE- - - - -

1. The student will list the three essentials used to measure concepts in the structure of a task analysis at 100% accuracy.

PRE-TEST- - - - -

LEARNING ACTIVITIES- - - - -

1. "Task Analysis - structure" - Orientation program - Segment #11
2. "Developing Vocational Instruction" - Mager & Beach, Chap. 2,3
3. "Developing Programmed Instructional Materials" Espich & Williams, Chap. 3, 4
4. "Preparing Instruction Objectives" Mager, Chap. 5
5. Audio-Tape Cassette #11 - "Task Analysis - Structure"
6. Overhead Projector overlays - 11a, 11b - Task Analysis
7. Plateau group discussion - Dept. members
8. Worksheet - Task Analysis Structure

POST-TEST- - - - -

(See Instructor)

ENRICHMENT- - - - -

1. "Developing Vocational Instruction" - Mager & Beach, Chap. 5, 10, 12
2. "Developing Attitude Toward Learning" - Mager, Chap. 6, 7, 8

SELF EVALUATION

The Educational Task Analysis attempts to survey the particular area under consideration to determine three items:

- a. _____
- b. _____
- c. _____

Many pitfalls are avoided by the functional use of the task analysis. Name three of these:

- a. _____
- b. _____
- c. _____

The conceptual domains of learning are divided into two areas:

- a. _____ b. _____

There are three criteria that we use to measure concepts and skills in the educational task analysis. Name them:

- a. _____
- b. _____
- c. _____

In earlier segments, you listed concepts for the development of disciplinary behavioral objectives. Apply these concepts to the pattern of the Task Analysis to see how they stand up under the suggested criteria. Discuss this with your group.

L.P.#11

Post-Test On
Learning Packet #11
"TASK ANALYSIS STRUCTURE"

NAME _____ DATE _____

Part A

Directions: List in writing each of the three essentials used to measure concepts in the structure of a task analysis.

1. _____

2. _____

3. _____

Part B

Directions: Read the concept for task analysis and construct a task analysis chart below and then categorize according to domain three essential concepts in your related discipline. You are to select a three-man peer group to evaluate your work.

LEARNING PACKET #12

"THE DEVELOPMENT OF A TASK ANALYSIS"



DEVELOPMENT OF A TASK ANALYSIS

L.P.#12

CONCEPT- - - - - The development of a Task Analysis

PURPOSE- - - - - The structure of the Task Analysis
permits the teacher to list and evaluate
the various concepts and skills that
would be included in the program.
Concepts are rated according to their
relevance, frequency and difficulty.
From this, we can establish what we
want to teach, how we plan to teach it.
and to what degree it should be taught.
With the essential concepts developed
from a valid task analysis, we are in
a position to construct the terminal
objectives of the program.

PRE-TEST- - - - -

WILLINGBORO PUBLIC SCHOOLS

L.P.#12

Pre-Test - Learning Packet #12

"Task Analysis Development"

NAME _____ DATE _____

Part A.

DIRECTIONS: List four steps in sequential order that are used to develop terminal objectives from a valid task analysis.

1.

2.

3.

4.

Part B.

DIRECTIONS: Write the three stages of development in the task analysis that are necessary to reach the level of interim objectives.

L.P.#12

"Task Analysis Development

Part C.

NAME _____ DATE _____

DIRECTIONS: On the Task Analysis Chart below list five acceptable concepts and develop in writing a terminal objective for each concept.

TASK ANALYSIS CHART

CONCEPT	TAX.	V/M	TERMINAL OBJECTIVE

Save this portion of your test. You will need it to complete the terminal objective in Learning Packet #13.

BEHAVIORAL OBJECTIVE- - - - -

Given the structure of a Task Analysis, the student will list five acceptable concepts and develop in writing a terminal objective for each concept, the efficiency level being to the satisfaction of a five-man peer group for evaluation.

SUB OBJECTIVE- - - - -

1. The student will list four steps in sequential order that are used to develop terminal objectives from a valid Task Analysis the efficiency level being 100%.
2. The student will write the three stages of development in the Task Analysis that are necessary to reach the level of interim objectives at 100% accuracy.

PRE-TEST- - - - - (See Orientation Sheet #12)

LEARNING ACTIVITIES- - - - -

1. "Task Analysis - Development" - Orientation Program, Segment 12
2. "Developing Programmed Instruction. Mat'ls", Espich & Williams, Chap 4.
3. "Developing Vocational Instruction", Mager & Beach, Chap, 4, 8
4. Audio-Tape cassette - #12 Developing Task Analysis
5. Overhead Projector Overlays #12a, 12b - Dev. Task Analysis
6. Worksheet - Developing Terminal Objectives
7. Plateau group discussion - Dept. Chairman
8. Self-evaluative test - Task Analysis
9. "Curriculum Construction Steps - Explanation of Model" - Owen Tait

POST-TEST- - - - - (See instructor)

ENRICHMENT- - - - -

1. "Developing Programmed Instructional Materials", Espich & Williams, Part II
2. "Developing Vocational Instructional Instruction", Mager & Beach, Chap. 12
3. "Realms of Meaning", Phenix, Chap. 24

CURRICULUM CONSTRUCTION STEPS

EXPLANATION OF MODEL

This model is designed to be followed during the initial, or "arm chair" point of curriculum construction. Modification, of course, will occur as a result of pre-testing, post-testing and pupil feedback.

1. First step is to identify a basic concept that the pupil should have in his intellectual armament.
2. The second step is to define behavioral objectives; which, when achieved will lead to concept formation on the student's part. Objectives, in this framework should be phrased to describe precisely what behavior the pupil is expected to exhibit as a result of his learning within the six levels of Bloom's Cognitive Domain." (NOTE: We are actually using Esbensen's four level of taxonomy in the Willingboro School District of New Jersey.)
3. In this model, the third step is test construction. It is included at this point, instead of at the end, for several reasons:
 - a. It provides a natural flow of thought for the curriculum constructor. As he designs a behavioral objective it is very easy to take the next step and design a test item, problem or situation to ascertain whether or not the pupil has achieved the desired behavior.
 - b. Knowing clearly what the objectives are and how they are to be measured, constructing learning experiences then becomes a job of logically implementing the pupil growth toward the goals.

Some critics of this sequence of curriculum construction have said, "That's bad,

you're teaching for the test!" This cliché makes sense when teaching is directed toward tests which have been constructed outside the curriculum. If behavioral goals are established and tests are designed to measure achievement of those goals then "teaching for the test" is not a criticism, it's a logical and correct thing to do.

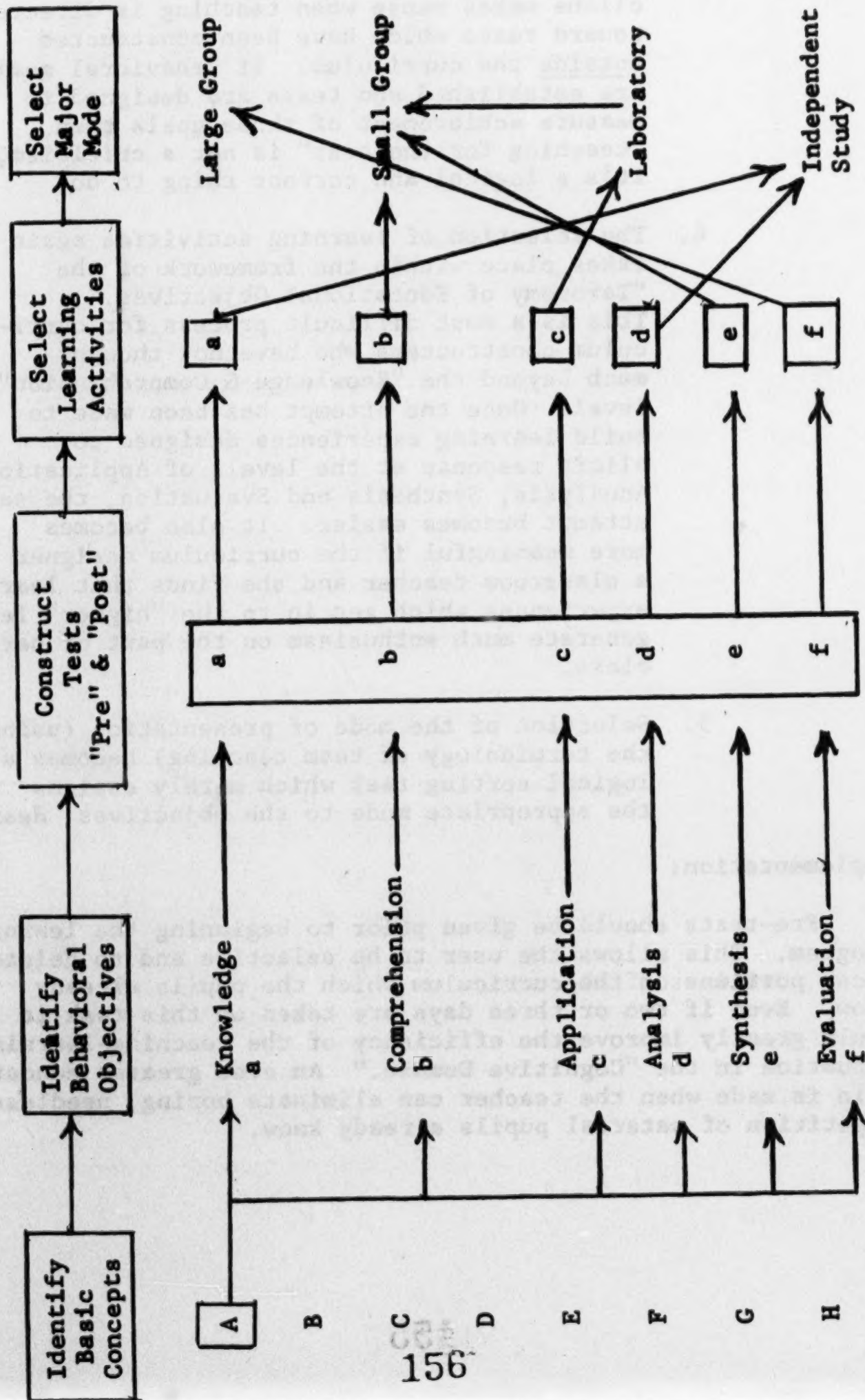
4. The selection of learning activities again takes place within the framework of the "Taxonomy of Educational Objectives." This is a most difficult process for curriculum constructors who have not thought much beyond the "Knowledge & Comprehension" level. Once the attempt has been made to build learning experiences designed to elicit response at the levels of Application, Analysis, Synthesis and Evaluation, the second attempt becomes easier. It also becomes more meaningful if the curriculum designer is a classroom teacher and she finds that learning experiences which get in to the "higher" levels generate much enthusiasm on the part of her class!
5. Selection of the mode of presentation (using the terminology of team teaching) becomes a logical sorting task which merely assigns the appropriate mode to the objectives desired.

Implementation:

Pre-tests should be given prior to beginning the learning program. This allows the user to be selective and to delete those portions of the curriculum which the pupils already know. Even if two or three days are taken on this task it would greatly improve the efficiency of the teaching-learning situation in the "Cognitive Domain." An even greater educational gain is made when the teacher can eliminate boring, needless repetition of material pupils already know.

CURRICULUM CONSTRUCTION STEPS

Flexible Scheduling - Team Teaching - Continuous Progress



A WALK THROUGH A SAMPLE CONCEPT

1. Basic Concept in Science - (from NSTA list)

"One of the forms of energy is the motion of units of matter. Such motion is responsible for heat and temperature and for the states of matter, solid, liquid and gas."

2. Describing a behavioral objective in each area of Bloom.

- a. Knowledge - The student can define a molecule as a small particle of matter.
- b. Comprehension- The student can compare a molecule to a brick as a "building block."
- c. Application - The student could utilize his knowledge of heat and molecular motion to separate a mixture of sugar and water.
- d. Analysis - The student can write an analysis of the water cycle in terms of heat input and output at various phases of the cycle.
- e. Synthesis - The student can arrive inductively at a generality concerning the relationship between pressure and boiling point after doing an experiment in which boiling point is measured under 4 conditions of pressure.
- f. Evaluation - The student should be able to compare the Aristotelian concept of the composition of matter with the molecular theory and identify the consequences which would have occurred had scientists clung to the Aristotelian theory.

3. Test construction designed to measure precisely the stated objective.

- a. Knowledge item - The smallest particle that can still be identified as water is called a _____ of water.
- b. Comprehension - item Write a short paragraph comparing a molecule to a brick.
- c. Application - In the lab. Separate a mixture of water and sugar.
- d. Analysis - Describe the water cycle in terms of heat output and input at the various phases.
- e. Synthesis - In the lab. Heat water to the boiling point at atmospheric pressure, at 35" pressure at 24" pressure and at 20" pressure. Make a statement defining the relationship between pressure and boiling point.
- f. Evaluation - Discuss in a short paper the merits of the molecular theory of matter as compared to the Aristotelian concept of matter as Earth, Air, Fire, and Water. What would have been the consequences of clinging to the Aristotelian theory?

4. Learning experience examples designed to teach the specific objectives.

- for objective a - Read Chapter 2 "Basic Physical Science." View Filmstrip #21, "The Atom," or filmstrip #49, "Where Heat Comes From."
- for objective b - Same as above.
- for objective c - Distill water containing food coloring. Discuss results in small groups.

- for objective d - Large group presentation on water cycle.
- for objective e - Demonstration of lab techniques to achieve different pressures.
- for objective f - Large group presentation on History of Molecular Theory of Matter.

5. Mode of presentation examples.

- Independent Study - Reading, viewing filmstrips
- Small group - Discussion of lab results.
Demonstration of lab techniques.
- Large group - Presentation of water cycle.
History of molecular theory.
- Laboratory - Distillation.

6. Pre-test constructed similar to post-test or both tests identical.

NOTE: This paper was written by Mr. Owen Tait, Assistant Superintendent of the Laguna Beach School District, Laguna Beach, California. Mr. Tait shared this paper with the Willingboro School District, Willingboro, New Jersey.

DEVELOPING TERMINAL OBJECTIVES
FROM THE TASK ANALYSIS

CONCEPT	TAX.	V/M	TERMINAL OBJECTIVE
the slide rule	A	V	The student will find the log of a three digit number using a slide rule at 100% accuracy.
a dress pattern	A	V/M	The student will cut and lay out a dress pattern from two yards of material to the predetermined standard of efficiency.
a poem	C	V	The student will construct a poem of eight lines following a rhyming pattern and using consistent meter count at 100% accuracy.
eight reading (music)	C	V	Given a single line of 30 musical notes equivalent to a 20 beat count in 4/4 time, the student will identify the notes orally in sequence within a ten second time span.
			Directions: Study the examples given above, then list some concepts and practice going through the task analysis

SELF EVALUATIVE TEST - TASK ANALYSIS

L.P.#12

1. Substantiate your present program or subject in terms of necessary learning concepts for the student who must take his place in society (or become a professional student).
2. Name three items that should be considered about every concept included in your learning program.
3. Name one concept that you have been teaching which fulfills the following:

Concept (cognitive domain) _____

Concept (affective domain) _____

Verbal Skill _____

Motor Skill _____
4. Name one concept that you would delete from your program as a result of this lesson.
5. Name one skill development area which interfaces with another subject.

WILLINGBORO PUBLIC SCHOOLS

L.F. #12

Post-Test - Learning Packet #12

"Task Analysis Development"

NAME _____ DATE _____

Part. A.

DIRECTIONS: List four steps in sequential order that are used to develop terminal objectives from a valid analysis.

1.

2.

3.

4.

Part B.

DIRECTIONS: Write the three stages of development in the task analysis that are necessary to reach the level of interim objectives.

L.P.#12

"Task Analysis Development"

Part C.

NAME _____ DATE _____

DIRECTIONS: On the Task Analysis Chart below, list five acceptable concepts and develop in writing a terminal objective for each concept.

TASK ANALYSIS CHART

CONCEPT	TAX.	V/M	TERMINAL OBJECTIVE

Save this portion of your test. You will need it to complete the terminal objective in Learning Packet #13.

LEARNING PACKET #13

"TERMINAL OBJECTIVES"



TERMINAL OBJECTIVES

L.P.#13

CONCEPT- - - - - Terminal Objectives

PURPOSE- - - - - Terminal Objectives are constructed to bring about certain "intended behavior" on the part of the student that is relevant and meaningful for the development of the individual and his needs. A true assessment of the relevance of concepts to be covered is completed in a valid task analysis. Once the task analysis is completed, the terminal objectives can be determined and written as performance objectives in instructional packages. Interim objectives will also be developed in support of the terminal objectives.

PRE-TEST- - - - -

Pre-Test on Learning Packet #13

"TERMINAL OBJECTIVES"

NAME _____ DATE _____

DIRECTIONS: Using Part C of Post-Test No. 12 write the necessary interim objectives in support of each of the five behavioral objectives. This test is to be evaluated by and to the satisfaction of your instructor.

BEHAVIORAL OBJECTIVE- - - - -

Using the five terminal objectives that you developed on the post-test in Learning Packet #12, write the necessary interim objectives to support each of the five terminal objectives to the satisfaction of your Department Chairman.

PRE-TEST- - - - -

LEARNING ACTIVITIES- - - - -

1. "Terminal and Interim Objectives" - Orientation Program, Segment #13
2. "Developing Attitude Toward Learning", Mager
3. "Developing Vocational Instruction", Mager & Beach
4. Vimcet; "Selecting Appropriate Objectives", Mager
5. Preparing Instructional Objectives, Mager
6. Overhead Projector overlays 13a, 13b, "Terminal Objectives"
7. Audio Cassette Tape #13 - "Terminal & Interim Objectives"
8. "Faculty Course in Educ. Tech." - Quinn
9. "Working with Individualized Instruction", Esbensen
10. Plateau Group - Terminal Objectives - Department Chairmen

POST-TEST- - - - -

ENRICHMENT- - - - -

1. "Realms of Meaning" Phenix
2. Vimcet: "Developing Affective Objectives"

EVALUATION

Given five statements, the student will identify the terminal objectives and interim objectives by placing a T or an I in the proper space at an accuracy of 100%.

1. _____ Given the necessary materials, the student will construct a college representing the theme of Autumn to the Satisfaction of the instructor.
2. _____ Given ten problems of division in decimal numbers, the student will place the decimal point in the proper place in the dividend at 100% accuracy.
3. _____ The student will list the five factors necessary to complete a proper bibliographical reference to be used in a research paper at 100% accuracy.
4. _____ The student will construct a scale drawing of a set of wooden bookends at $\frac{1}{4}$ -1" scale using three views of front, side and top, successful achievement being at the satisfaction of the instructor.
5. _____ The student will conjugate the verb "to be" in Spanish in person, case, and singular/plural at 100% accuracy.

Given the terminal objective - "The student will complete a research paper on a selected topic not to exceed five pages, double spaced typing, with proper documentation and format, to present orally to the satisfaction of the instructor". Write five interim objectives that would be necessary to support the stated terminal objective at 100% accuracy.

- 1.
- 2.
- 3.
- 4.
- 5.

Post-Test on Learning Packet #13

"TERMINAL OBJECTIVES"

NAME _____

DATE _____

DIRECTIONS: Using Part C of Post-Test No. 12, write the necessary interim objectives in support of each of the five behavioral objectives. This test is to be evaluated by and to the satisfaction of your Department Chairman.

LEARNING PACKET #14

"THE CONSTRUCTION OF A LEARNING PACKAGE"



LEARNING PACKAGE: RESOURCES

L.P.#14

CONCEPT- - - - - The construction of a Learning
Package.

PURPOSE- - - - - As a vehicle for individualization,
the instructional learning package
provides varied learning processes
for student selection, tracking,
branching, budgeting, and enrichment.
Built around sound objectives, the
learning package speaks to the stu-
dent and allows the student to
engage in meaningful learning ex-
periences in which he has a stake.
The package provides motivation by
its structure and initiation by its
appeal. It precludes involvement on
the part of the student and is a
sharing of learning rather than spoon-
feeding.

PRE-TEST- - - - -

L.P.#14

Pre-Test on Learning Packet #14

"THE LEARNING PACKAGE RESOURCES"

NAME _____ DATE _____

Part A.

DIRECTIONS: Using a meaningful and relevant concept and a behavioral objective, develop or construct the following resources or learning activities for a learning packet.

1. an overlay
2. an audio tape

These resources must be done to the satisfaction of your instructor.

L.P. 114

Pre-Test on Learning Packet #14

Part B

DIRECTIONS: Obtain from your instructor an essential concept derived from a valid task analysis. Construct a learning packet on the concept you received, utilizing the following format:

1. Concept
2. Purpose
3. Behavioral Objective
4. Pre-Test
5. Learning activities
6. Post-Test
7. Enrichment

BEHAVIORAL OBJECTIVE - - - - -

Given an essential concept by your Department Chairman derived from a valid task analysis in your disciplinary area, the student will construct a learning package utilizing the suggested format to the satisfaction of the members of your department.

SUB OBJECTIVES- - - - -

Given the proper materials and hardware by the Department Chairman, the student will construct the following resources for a learning package to the satisfaction of the Department Chairman.

1. an overlay
2. an audio tape

PRE-TEST- - - - -

LEARNING ACTIVITIES- - - - -

1. "Learning Package - Resources" - Orientation Program, Segment #14
2. "Faculty Course in Educ. Tec.", Quinn Chap. VII
3. "Working with Individualized Instruction", Esbensen, Chap II, III, IV
4. A Learning Packet on How to Make a Learning Packet - Gladhorn (Reprint)
5. Audio Cassette Tape #14 - Learning Package
6. Overhead Projector Overlay 14a, 14b, - "L.P."
7. Plateau Group Interaction
8. Dept. Conference - Instructor

POST-TEST - - - - - (See Instructor)

ENRICHMENT- - - - -

1. Student develop his own L.P. with all components.
2. Review sample L.P.'s on display.
3. Develop a graphic chart.
4. Develop a video-tape or photographic slide series format.

SELF EVALUATION

For a simple behavioral objective in your discipline, write a series of learning activities or resources which will provide several routes of learning for the student to select at his own discretion.

Among your resources, include the following:

At least one reading reference for the high ability

At least one reading reference for the low ability

Two or more reading references supplemental to the concept

Two or more visual resources

One or more audio resources

Two or more verbal activities

At least three activities that every student can use.

LEARNING ACTIVITIES

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

ENRICHMENT: Think about the student who wishes to pursue a particular concept into greater depth on his own volition. Don't shut him out. Either provide depth study opportunity (quest) or let the student develop additional objectives to pursue himself with your approval.

Post-Test on Learning Packet #14

"THE LEARNING PACKAGE RESOURCES"

NAME _____ DATE _____

Part A.

DIRECTIONS: Using a meaningful and relevant concept and a behavioral objective, develop or construct the following resources or learning activities for a learning package.

1. an overlay
2. an audio tape

These resources must be done to the satisfaction of your Department Chairman.

Post-Test on Learning Packet #14

Part B.

DIRECTIONS: Obtain from your Department Chairman an essential concept derived from a valid task analysis. Construct a learning packet on the concept you received, utilizing the following format:

1. Concept
2. Purpose
3. Behavioral Objective
4. Pre-Test
5. Learning Activities
6. Post-Test
7. Enrichment

APPENDIX D

179
ABSTRACT

Title: Vocational-Technical Education in Television, 1969-70

Local Educational Agency:

Willingboro Public Schools, Willingboro, New Jersey

Total Funds Requested From:

(1)	Federal and/or State	\$ 26,685.00
(2)	Local	\$ 5,420.00

Overall Purposes of Proposed Program:

This program is being developed to give students job entry skills in three job clusters within a television studio. The skills employed before the camera, the skills found in the operation of the equipment, and office and management skills. The initial phase of the program (69-70) will consist of staff work in writing behavioral objectives of an interdisciplinary nature and the development of a program for each job cluster. High school juniors and seniors are to be involved in the program planning and operation.

Activities and Procedures:

The project administration with the project teachers, consultants, and advisory committee will design, first, the total program for youngsters in each job cluster. Subsequently, the staff with the assistance of the SCOPE center at Rutgers will write the interdisciplinary behavioral objectives and make out a schedule. Students will be selected and pilot programs will be taped. All of this will require hours of research, consultations with professionals, visits to TV studios, consultation with Vocational Education people in the State Department of Education and visits to vocational education schools that have a television capability. The nature of this planning phase is such that the work must be done outside of the normal school day.

The second year of the program will see the schedule in action with students involved in each job cluster doing all the work necessary for the production of educational television tapes. Continuous evaluation and refinement must be a part of the program. The third year of the program (the second for the students) will be built upon the evaluations and refined.

Expected Contribution to Vocational-Technical Education:

Vocational-technical education in Willingboro has been on a rather small scale. None of the efforts have used interdisciplinary behavioral objectives. This program will pave the way for true vocational-technical education, not only in television communications but in communications through other media. Further, the process can be adapted to other areas.

In the immediate, this program can be adapted for post secondary students and adults utilizing the equipment and studio as well as the classrooms during the late afternoon and evening hours. An expansion of the program's facilities from one to three studios is possible.

VOCATIONAL-TECHNICAL EDUCATION IN TELEVISION

This program is being developed to give students job entry skills in three job clusters within a television studio: The skills employed before the camera, the skills found in the operation of the equipment, and office skills and management.

Union and management officials have agreed to certain training programs in some television stations. The trainees usually have a college background in communications and are given a year's training on the job. After the training period the individual is expected to enter the labor market with his skill. Our program would enable a high school student to enter into professional training or go on to college if he should have the ability and desire.

It is expected that the professional people in the positions mentioned above will monitor and instruct in the activities occurring in the three areas. Specifically, the skills include script writing, set design, and performing before the camera; equipment operation, production and direction, and technical work behind the camera; stenography, filing and other office duties.

The students will attend classes during part of the day and get their training in the above mentioned skills during the rest of the day in the studio.

The planning for this project, the outlining of the details and the writing of the performance objectives will be the work of the staff during the school year 1969-70.

Performance objectives exist in many of the areas the students will work in. However, none exist in the totality of the area - communications, utilizing television. In order to satisfy the needs of the students and their future employers, interdisciplinary performance objectives, academic and vocational-technical, must be developed, tested, and refined.

What sorts of information should a student be able to use if he is working in the job cluster before the camera?...behind the camera?... in the office? What kinds of performance should one expect of these students? What skills must be employed by the students? What sort of philosophy must he develop toward himself and the medium? How can the skills be used to enhance the individual students? What attitudes should the student have that would encourage him to continue his learning?

These and other questions concerning the student who enters the communications field must be answered or at the least approached by the staff during the planning period of the first year of this program.

The Willingboro School System has the basic hardware to produce a series of tapes. The staff has been exposed to the development of performance objectives within specific disciplines. Other staff members have developed a package of materials and a program which will enable any teacher to write performance objectives and learning packages. However, the writing of interdisciplinary performance objectives and the construction of learning packages that cross subject area lines has not been accomplished in the field of human communications nor in the field of television communications. Dr. Bruce Tuckman of SCOPE is vitally interested in this approach.

He and his staff are available to assist the local personnel in carrying out this task. This activity would help to implement his plan for a reorganization of the ES'70 network (see the attached). It is hoped that our local project will be adopted by the ES '70 network as a model for similar projects. The melding of the vocational education objectives with the methodology of ES'70 should carry education far from the usual tangle into the open areas of systemized, relevant, individualized education for every child.

The staff, as outlined in the budget attached, would have these objectives:

1. The design of the curricula for each cluster of jobs.
2. The design of the interdisciplinary performance objectives and learning packages suited to each cluster.
3. The development of a program (schedule) that would be operable within the high school.
4. Identify new positions and write job descriptions.
5. The selection of script material, visuals, and technical skills to tape several practice programs to validate their approach.
6. Designing and implementing evaluation procedures for each phase of the program.
7. The selection of pupils and teachers to carry on the program's second phase.
8. Complete the detailed planning for the second phase - that of shooting tapes and the operation of the studio.
9. Outlining the third phase - the modification of the performance objectives, learning packages and scheduling.

This procedure when once refined could apply to other areas of communications - printed media and radio - as well as other vocational areas. But the system does need research and testing.

Specific tasks to be performed in and for the studio:

- | | |
|----------------|--|
| TALENT: | <ol style="list-style-type: none"> 1. Announcing - performance on camera 2. Scripting - the writing of scripts, creating ideas, research, editing 3. Developing the sets - art work and sequencing, art direction 4. Lighting and staging construction |
|----------------|--|

-
- | | |
|---|---|
| PRODUCTION AND TECHNICAL SKILLS: | <ol style="list-style-type: none"> 1. Production and direction of the programs 2. Operation of the cameras 3. Audio and Video controlling 4. Operation of audio equipment 5. Operation of VTR's 6. Technical controlling and coordination 7. Film production 8. Programming 9. Film and tape editing |
|---|---|
-

- | | |
|-----------------------|--|
| OFFICE SKILLS: | <ol style="list-style-type: none"> 1. Stenography 2. Filing and office routine operation and management 3. Maintenance of tape library 4. Office and studio management |
|-----------------------|--|
-

It is expected that this program with little modification can be adapted for use with post-secondary pupils and adults. The studio facilities, equipment and classrooms could be made available for such a program without modification. There would be a need for professional personnel to handle these students.

The attached scale drawings of the facilities indicate the present area in use with the equipment noted. The second drawing indicates the possible expansion of the studio facilities from one to three operating areas with a variety of sizes and shapes to accommodate programs requiring more or less space for the program settings.

Such flexibility would increase the quality of the productions and provide space for more students while giving them a greater variety of experiences.

The Project Administrator has contacted the Burlington County Vocational-Technical High School where he learned that their television capability is still to be realized. Even upon completion of their studios their program will in no way conflict with this proposed program.

The administration of the Burlington County Community College is building toward a similar program in communications having just now started with a print shop. When their radio and television facilities are in operation students from this program would be welcomed by the college and entered into their individualized program, thereby giving a youngster the possibility of four years practical and academic work in the field of television.

PROPOSED SCHEDULE - PLANNING STAGE 1969-70

October and November, 1969

1. Staff orientation to program by TV professionals.
2. Staff, State Department advisors and consultants. Outline curriculum in each job cluster.
3. Staff visits to TV studios and Vocational Education schools.
4. Staff - identify new positions and write job descriptions.

December, 1969

1. Staff retraining in the identification and writing of behavioral objectives and learning packages.

January - March, 1970

1. Staff and SCOPE personnel write behavioral objectives for each job cluster.
2. Staff & SCOPE personnel develop behavioral objectives in field of human communications and its impact on society.
3. Staff to visit TV studios.

April - May, 1970

1. Staff to test specific vocational-technical behavioral objectives in the studio.
2. Staff refine objectives and learning packages.
3. Staff prepare tentative teaching-learning schedule.

June, 1970

1. Staff refine teaching-learning schedule.
2. Staff complete details of Phase II.
3. Staff outline Phase III, including budget.

PROPOSED BUDGET - PHASE I - 1969-70

<u>100 - Administrative</u>	<u>Fund Sources</u>	
	<u>Local</u>	<u>Federal-State</u>
Project Administrator	1,650	
Project Director		1,500
Producer-Director TV	1,100	
Ass't. Producer-Director TV		1,000
Technical Coordinator TV	800	
Ass't. Technical Coordinator TV		750
TV Teacher Specialist	800	
	<u>4,350</u>	<u>3,250</u>
 <u>Materials and Supplies</u>		
Office Supplies, postage and printing	300	
 <u>Travel</u>		
Administrator to Voc. Ed. Schools and TV studios		500
 <u>Other Costs</u>		
Unanticipated Expenses		<u>200</u>
 Total Account 100	 4,650	 3,950

VOCATIONAL-TECHNICAL EDUCATION IN TELEVISION

<u>200 Instruction</u>	<u>Fund Sources</u>	
	<u>Local</u>	<u>Federal/State</u>
Project Planning Assistants		
(Dept. Heads)		
Math	1 @ \$750.00	\$ 750.00
English-Drama	1 @ \$750.00	750.00
Art	1 @ \$750.00	750.00
Music	1 @ \$750.00	750.00
(Industrial Arts)		
Vocational Ed.	1 @ \$750.00	750.00
Business Ed.	1 @ \$750.00	750.00
Vocational Guidance	1 @ \$750.00	750.00
		<u>\$ 5,250.00</u>
Project Planning Teachers		
Math	3 @ \$600.00 ea.	1,800.00
English-Drama	3 @ \$600.00 ea.	1,800.00
Art	3 @ \$600.00 ea.	1,800.00
Music	3 @ \$600.00 ea.	1,800.00
Industrial Arts	1 @ \$600.00	600.00
Vocational Ed.	2 @ \$600.00	1,200.00
Business Ed.	3 @ \$600.00	1,800.00
Vocational Guidance	1 @ \$600.00	600.00
		<u>\$ 11,400.00</u>
Consultants by Field		
Vocational Ed.		
SCOPE - Rutgers No Fee		
TV Producer-Directors		
TV Actors and/or Commentators		
TV Business Manager		
Employment Counselor		
Total cost approximately		<u>\$ 1,000.00</u>
		<u><u>\$ 17,650.00</u></u>

200 Instruction (Cont'd)**Local****Federal/State****Salaries****Non-Professionals**

Part Time Secretary	\$	1,800.00
Clerk-typist (part time)		900.00
Accountant (part time)		200.00
	\$	<u>2,900.00</u>

Travel

Staff visits to TV Studios and vocational education schools	\$	500.00
--	----	--------

Consultant Travel		150.00
	\$	<u>650.00</u>

Materials & Supplies

Video tapes @ \$60.00 each	\$	120.00	120.00
AV Materials-Film et al		150.00	
16mm Camera			300.00
Research Documents & Publications			200.00
Instructional Mat'ls & supplies		150.00	
16mm Film Splicer			35.00
	\$	<u>420.00</u>	\$ <u>655.00</u>

(Brought fwd) \$ 17,650.00

Total Account 200 \$ 21,855.00

<u>1230 - Capital Outlay</u>	<u>Fund Sources</u>	
	<u>Local</u>	<u>Federal/State</u>
Repairs and/or Replacement Parts	\$ 150.00	\$ 150.00
TV Studio Equipment \$50.00/hour*		
Typewriter - Electric		500.00
Secretary's Desk & Chair		150.00
File Cabinet, 4 drawer		80.00
Office Misc Equipment	200.00	
Total 1230 Acct	350.00	880.00
<u>GRAND TOTALS - ACCTS. 100, 200, 1230</u>	<u>\$ 5,420.00</u>	<u>\$ 26,685.00</u>

* Estimated value of studio equipment - \$75,000.00

Local funds are those that will be diverted from other district functions and used in the development of Vocational-Technical Education in Television.

NON-BUDGETABLE ITEMS

At a recent meeting of the Citizens Advisory Committee which reviewed the application and proposal, several points were brought out:

1. The communications field, and particularly television, is staffed by a great number of high school graduates. College personnel prove to be of little immediate value to commercial television studios since all must be retrained. College and university faculties are often far behind actual studio practice. This from Mr. Brash and Mr. Helsel. Both Brash and Helsel of KYW radio and television offered their services and the services of others in orientating the staff working directly with the staff during the planning phase, and working with children. Other professionals in the field live in Willingboro and have indicated to each member of the Advisory Committee that they would be willing to donate their time to this project.
2. Mr. Lopez of RCA indicate that his company would donate a limited amount of equipment.
3. Through RCA and Mr. Lopez tours can be arranged through NBC studios in New York as well as the RCA closed circuit operation.
4. KYW will arrange studio tours.

VOCATIONAL-TECHNICAL EDUCATION IN TELEVISION (Second Year)

INTRODUCTION

Although the planning which is to take place during the first year of this program has not yet been completed, the deadline for the submission of the second year's program falls upon us. Meetings have been held with the Advisory Committee, the staff of the Willingboro Public Schools and members of the SCOPE Center from Rutgers University.

The first year's proposal and the overall program have been received well by the Office of Education. The SCOPE Center at Rutgers has been advised that it may divert some of its monies and the services of two graduate students to help plan and implement this program. The graduate students are scheduled to start working full time with the Willingboro staff immediately after the first of January 1970.

Professionals in the television field have come forward offering their services and have told us time and again that this program, in their estimation, is of great value to the industry. They wish to be involved, and will act as consultants giving guidance to the staff and the students without remuneration.

ITEMS 4 and 5, PAGE 2

As mentioned in the Abstract, the major task of the second year will be to put the program into operation and to analyze the program from every possible viewpoint. The overall goals are here again stated.

1. Students who complete a course in Communication Arts and Technologies will demonstrate, through performance, relevant skills for job entry into the television industry.
2. Students who complete a course in Communication Arts and Technologies will demonstrate, through attitude and motivation, the affective attributes necessary for successful employment in the television industry.
3. The administration and staff involved in this project will demonstrate, through performance, the ability to generate behavioral objectives and instructional materials which are interdisciplinary in design.
4. Participants in this project will generate a concrete model (vehicle) which integrates civic-citizenship, personal-social, academic, and vocational skills.

This should satisfy the requirements of Items 4 and 5 in the application
outline.

ITEM 8, PAGE 2

Insofar as our research has discovered there is no comprehensive high school offering this sort of program. The need was substantiated through conversations and correspondence with professional personnel in the television industry. In the Philadelphia area we have discovered only two training programs operated by commercial television stations. The trainees are college graduates who are put through a years service. It has been stated by professional personnel that a college education in this field is often deficient because the improvements in techniques are occurring rapidly and that is the reason that these same professionals have offered their time to the program. They feel that their day to day experience is much more valuable than the college education a student is exposed to. Attached you will find copies of letters from these agencies. The professionals have stated that a college education is not mandatory in order to gain job-entry skills in the job clusters mentioned. However, if the planning for Burlington County Community College continues they would hope to be able to offer two more years of post high school education within the same job clusters carried out in the same interdisciplinary manner as we propose.

ITEM 9, PAGE 2

Our previous application #5.2630-96 had with it the diagram of the studio layout as we would expect to expand it for the second year's operation. The expanded diagram called for three studios, and would be the ultimate. We expect to use only the existing studio and one other. Studio number two backs directly upon the control room. The control console and VTR would be mounted in the present control room with the cameras in the larger studio. Please refer to the other diagrams previously submitted.

The equipment list as outlined in the attached budget is a full and complete list which would allow us to operate a second studio. Our original studio would be used in this program as well. Therefore, we are coupling the utilization of our present equipment with that which we would hope to acquire through the program. With the two studios in use we can operate a vocational-technical program worthy of the name. Willingboro is in the unique position in having a great deal of experience in this sort of work. The Willingboro School System is contributing substantially to this program through the use of skilled personnel, materials and supplies, and the office equipment and video equipment.

VOCATIONAL-TECHNICAL EDUCATION IN TELEVISION

PROPOSED BUDGET - SECOND YEAR #5.2630-96

(This page and the following pages explain items 1 through 7 on page three of the application)

100 - ADMINISTRATIVE

	<u>FUND SOURCES</u>	
	<u>LOCAL</u>	<u>FEDERAL/STATE</u>
<u>Salaries</u>		
Project Administrator 1/5	3,300.00	
Project Director (P/T)	2,000.00	
Producer - TV (Full time)	13,200.00	
TV Specialist (Full time)		13,970.00
Production Director (Full time)		9,000.00

Materials & Supplies

Office Supplies, postage & Duplicating 500.00

Travel - Administration

Vocational-Education Schools 500.00
TV Studios

Other Costs

Unanticipated Expenses 300.00

TOTAL ACCOUNT 100

18,900.00 23,770.00

ITEM 9 PAGE 3

The establishment of this program to handle a significant number of youngsters demands the hardware as listed on these budget pages. Willingboro's present television studios are inadequate for a comprehensive program as is proposed.

200 - INSTRUCTION**FUND SOURCES**
LOCAL FEDERAL/STATE**Salaries****Teachers**

Artist - Set Builder	8,500.00	
Writer	8,500.00	
Audio-Video Engineer	8,500.00	
Floor Manager	8,500.00	
Cameraman	8,500.00	
VTR Engineer	8,500.00	
Film Cameraman	8,500.00	
Office Practice	8,500.00	
	<u>68,000.00</u>	

Consultants - Evaluators

Vocational-Education	10 days	
TV Professionals	5 days	
Business Education	2 days	
Employment Counselor	5 days	
		<u>2,200.00</u>

Non-Professionals

Secretary (p/t)	1,000.00	
Clerk	500.00	
Accountant	200.00	

Travel - Staff and Students

TV Studios - Vocational Education Schools		1,500.00
Consultants		500.00

Materials & Supplies

Video tapes @ \$60.00	600.00	600.00
AV Materials		
Film	300.00	1,000.00
Instructional Materials & Supplies	500.00	

TOTAL ACCOUNT 200**3,100.00 73,800.00**

1230 CAPITAL OUTLAY

FUND SOURCES LOCAL FEDERAL/STATE

VTR with Elec. Editor
Cameras 3 @ 11,000 ea.
Production Console
Lighting System
Lights
Cyclorama (drapes)
Sound proofing
Cork floor tile

6,600.00
33,000.00
15,000.00
1,500.00
1,200.00
1,000.00
1,000.00
3,600.00

Office Equipment
Desks & Chairs
Files
Typewriter

1,000.00

Repairs & Replacement Parts

500.00 1,000.00

Use of Studio #1

40,000.00

\$75,000 value, \$50/hr. 800 hrs

41,500.00 63,900.00

TOTAL 1230 ACCOUNT

TOTAL 100,200, 1230 ACCOUNTS

63,500.00 161,470.00

American Federation of Television and Radio Artists

Philadelphia Local

Room 1618-1620, Broad-Locust Bldg., 1405 Locust St., Phila., Pa. 19102 Kingsley 5-7788

THOMAS BROWN
President

WILLIAM BRANSOME
Vice-President

JOHN PAUL WEBER
Treasurer

NAT WRIGHT
Secretary

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Ron Polao
Steve Ross
Dan Streeter
Kathy Tarras
John Paul Weber
Nat Wright

W. MELVIN EVANS
Executive Secretary

September 15, 1969

Mr. Thomas S. Dietz
Administrative Assistant
Research and Program Development
Willingboro Public Schools
Riker Delaware Building
Willingboro, N.J. 08046

Dear Mr. Dietz:

The need for " Vocational Technical Education in Television" can best be pointed out by the fact that during the past year in the City of Philadelphia alone, two or more privately operated schools have been opened. It is my understanding that these schools are not having a problem with enrollments.

Two of the schools emphasize the opportunities existing in this field; one is sponsored by "Jerry Blavat" of Television and another by "Long John Wehde" of Radio. I must agree that there is a need. However, I would think that the need could be better served through Vocational Training such as the Willingboro Public School System is advocating.

Something must be wrong with our system when we force young people to pursue a career outside of our Public Schools which are for just that purpose.

I wish you complete success in your endeavor and shall pass the word to our Local Board members concerning an Advisory Board.

Sincerely,

W. Melvin Evans

W. Melvin Evans
Executive Secretary



WARREN A. KRAETZER
EXECUTIVE VICE PRESIDENT
AND GENERAL MANAGER

4548 MARKET STREET, PHILADELPHIA, PENNSYLVANIA 19139 (215) EV 2-9300
FIFTH AND SCOTT STREETS, WILMINGTON, DELAWARE 19805 (302) OL 4-6255

3

September 8, 1969

Dear Mr. Dietz:

I read, with great interest, your letter of September 4 describing your plans to establish vocational-technical education in television.

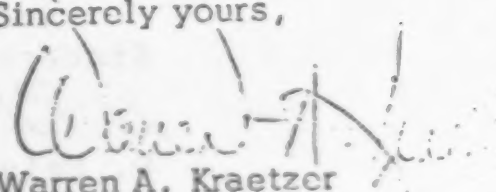
Perhaps the most useful comments I can make would be about the people behind the camera. Equipment plays an important role in the proper training of young people who may make a career in broadcasting.

As you know, most all television stations have moved to color equipment, which demands highly sophisticated lighting and graphics. Closed circuit broadcasting requires less expensive equipment; but, in any event, the kind of cameras, control equipment, tape recorders and audio equipment will play a large part in the design of your curriculum.

As far as philosophy is concerned, the student will have to make a decision at some point as to whether he wants to be in commercial or non-commercial broadcasting. So much of the communications curriculum depends on the experience of those who teach it and the background and motivation of the students.

Perhaps I could tell you better what I think might be included in a telephone conversation. If this seems useful to you, I would be happy to await your call.

Sincerely yours,


Warren A. Kraetzer

WAK:hn (Philadelphia)

Mr. Thomas S. Dietz
Administrative Assistant
Research & Program Development
Willingboro Public Schools - Riker Delaware Bldg.

WHYY, INC. • WHYY-TV • WHYY-TV-FM

PUBLIC BROADCASTING

WWNB I V

CN40

Kaiser Broadcasting

Carlo Anneke
General Manager

Burlington-Philadelphia

3201 S 26 St
Philadelphia Pa 19145
215/336 6400

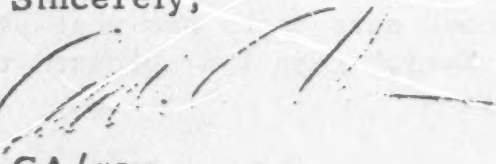
September 9, 1969

Dear Mr. Dietz:

Thank you for your letter of September 4 outlining your proposal to build your Vocational-Technical educational program. I can assure you that this will be of value to the television community.

In the past five years, the number of television stations serving the Delaware Valley has doubled and the need for interested and qualified graduates will continue to grow. At this point, there is no program to stimulate interest in television broadcasting. I commend you for your efforts in this behalf and stand ready to offer assistance.

Sincerely,



CA/gcv

Mr. Thomas S. Dietz
Administrative Assistant
Research and Program Development
Willingboro Public Schools
Willingboro, N. J.

KYW-TV 3

1619 WALNUT STREET PHILADELPHIA PA 19103 TELEPHONE 564-3700

KENNETH T MACDONALD
General Manager



WESTINGHOUSE BROADCASTING COMPANY INC.

WBZ-TV BOSTON
WINS NEW YORK
KYW-TV PHILADELPHIA
WJZ-TV BALTIMORE
KDKA-TV PITTSBURGH
WOIO FT. WAYNE
WIND CHICAGO
KPIX SAN FRANCISCO
KFWB LOS ANGELES

September 8, 1969

Mr. Thomas S. Dietz
Administrative Assistant
Research & Program Development
Willingboro Public Schools
Willingboro, N. J. 08046

Dear Mr. Dietz:

This will acknowledge your September 4th letter; and appreciating that one of the demands of the guidelines to expand the area of the teaching of communications is a "Statement of Need" from individuals concerned, may I say that KYW-TV is always interested in assisting educational organizations that are educating and advising young people in the art of communications.

Most certainly, there is a need for the advancement of not only journalism students, but for those youngsters who are interested in being behind the cameras, too.

If the above paragraphs are what you desire as a "Statement of Need," then I am pleased to be sending this to your attention.

Sincerely,

Kenneth T. MacDonald
Vice President and General Manager

KN:ng

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South Jersey Region

EDUCATIONAL
IMPROVEMENT
CENTER

MAIN STREET AND
NORMAL BOULEVARD
GLASSBORO, N.J. 08028
609-881-2260

JOHN ROSSER
DIRECTOR

SHERWOOD S. WILSON
ASSISTANT DIRECTOR

JOSEPH BUDGY
COORDINATOR OF
EVALUATION

A. NELSON GRAY
COORDINATOR OF
PROGRAM DEVELOPMENT

MR. EMIL PRAKSTA
COORDINATOR OF
DISSEMINATION

BARRY HAMPE
MEDIA CONSULTANT

September 8, 1969

3

Mr. Thomas Dietz
Administrative Assistant
Research and Program Development
Willingboro Public Schools
Willingboro, N.J.

Dear Mr. Dietz:

I have just completed reviewing your abstract on the proposed "Vocational-Technical Education in Television - Communications Center".

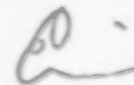
I find the idea to be very exciting, unique, and of great potential benefit to the students. We are living in the age of communications; television, the most fantastic of all communications media, is an integral part of our society and growing in scope and dimension every year. Yet, few schools offer any training in this area.

A program, as you propose, would provide valuable employment opportunities, motivation, and create student involvement. You know, those last two may be as important as any. Talk about relevant education!

I'm also intrigued by the interdisciplinary approach - once again, relevant educational programs.

By all means, I would be delighted to work with you in this proposed project. I have maintained that perhaps the best use of school television is in the area of student involvement.

Sincerely,



Emil Praksta
Coordinator of Dissemination
and Public Information

EP/gw

APPENDIX E

APPENDIX F

LEARNER RESPONSIVE INSTRUCTIONAL SYSTEM

Learning is an individual process. Different students approach the teaching/learning situation with different needs, goals, strengths, limits and experiences. A learner responsive instructional system provides for each learner the personal opportunity to participate in the:

1. Setting of his own short, intermediate and long range goals
2. Design of those educational experiences through which he will achieve success
3. Selection of learning methods and materials to be used without regard to subject matter boundaries
4. Budgeting of his time, within broad limits, in order to learn at a rate which is appropriate for him
5. Establishment of levels of performance to be reached which specify satisfactory fulfillment of curricular objectives

The ES '70 system is designed to develop learners who have the necessary skills and knowledge which prepare them to function as effective citizens in the social, political and economic spheres of today's and tomorrow's world.

The ES '70 Corporation will provide member districts with those unique services required to create and maintain a network of cooperating school systems which will implement a learner responsive instructional system

To accomplish this objective the Corporation will:

- 1.0 Prescribe corporation management policy and procedures
- 2.0 Provide the network as demonstration and validation sites for selected educational research and development activities
- 3.0 Implement a communication network which serves its internal and external needs
- 4.0 Provide for the dissemination of existing products and processes which are consistent with a learner responsive instructional system
- 5.0 Initiate appropriate development efforts as required
- 6.0 Provide technical assistance to corporation members and to others who contract for it
- 7.0 Assist in establishing secondary networks
- 8.0 Provide for an independent review and assessment of the network and its functioning

1.0 Prescribe Corporation Management Policy and Procedures

- 1.1 Establish ES '70 Executive Office**
- 1.2 Develop corporation operational plan**
- 1.3 Secure funds for corporation activities**
- 1.4 Establish and maintain key communication links (including federal and state)**
- 1.5 Prescribe criteria for school district participation in corporation**
- 1.6 Assist local districts in designing individual plans**
- 1.7 Evaluate school district's plan and progress against corporation's operational plan**
- 1.8 Revise By-laws as required**

- 2.0 Provide the network as demonstration and validation sites for selected educational research and development activities.
- 2.1 Collect base-line data on community, pupils and school systems.
 - 2.2 Establish criteria for learner-responsive instructional system.
 - 2.3 Establish guidelines delimiting relationships between validation sites and R & D activities.
 - 2.4 Identify sites in the R & D community.
 - 2.5 Inform R & D community of learner-responsive instructional system criteria, site descriptors and guidelines for participation.
 - 2.6 Screen R & D offers against pre-defined criteria.
 - 2.7 Link validation sites with R & D activities subject to prescribed guidelines.
 - 2.8 Evaluate cooperative activity against pre-defined criteria.
 - 2.9 Disseminate product/process to member school districts.
 - 2.10 Iterate product or service into master plan.
 - 2.11 Add final report to catalog of available products/processes.

3.0 Implement a communications network which serves its internal and external needs.

3.1 Assess communications needs of member districts

3.2 Design communications system for internal and external purposes.

3.3 Test and revise communications system

3.4 Implement communications system

3.5 Evaluate communications system against needs assessment

3.6 Disseminate local products and processes responsive to stated needs.

3.7 Provide for orientation to new personnel

- 4.0 Provide for the dissemination of existing products and processes which are consistent with a learner-responsive instructional system
 - 4.1 Establish criteria for a learner-responsive instructional system
 - 4.2 Determine product needs of learner-responsive instructional system
 - 4.3 Determine process needs of learner-responsive instructional system
 - 4.4 Search out existing products/processes
 - 4.5 Validate located products/processes in appropriate form.
 - 4.6 Catalog validated products/processes in appropriate form
 - 4.7 Distribute catalog to member districts and make available as purchase to others
 - 4.8 Evaluate utility of selected products/processes in member schools
 - 4.9 Reassess needs of member districts

5.0 Initiate appropriate development efforts as required

- 5.1 Establish criteria for a learner-responsive instructional system**
- 5.2 Validate needs statements against pre-defined criteria**
- 5.3 Match needs statements against prepared catalogs of existing products/processes**
- 5.4 Establish criterion performances required to satisfy needs**
- 5.5 Establish priority schemes against corporation operational plan.**
- 5.6 Match needs request against corporation's own technical assistance capability.**
- 5.7 Prepare Requests for Proposals and publish same as solicitations**
- 5.8 Review submitted bids and negotiate contract with selected bidder.**
- 5.9 Award contract**
- 5.10 Iterate final product or service into master plan**
- 5.11 Add final report to catalog of available products/processes**

- 6.0 Provide technical assistance to corporation members and to others who contract for it.
 - 6.1 Establish criteria for learner responsive instructional system.
 - 6.2 Identify network staff members with specific competencies
 - 6.3 Identify external resource personnel with specific competencies.
 - 6.4 Design guidelines for internal technical assistance programs
 - 6.5 Design guidelines for contractual services to requesting institutions
 - 6.6 Determine priority scheme of technical assistance schedule.
 - 6.7 Establish procedures for network utilization of technical assistance program
 - 6.8 Design training programs to extend technical assistance capabilities
 - 6.9 Evaluate technical assistance program

7.0 Assist in establishing secondary networks.

- 7.1 Establish criteria for learner responsive instructional system.**
- 7.2 Develop guidelines for secondary network selection.**
- 7.3 Provide for linkages between primary and secondary networks.**

8.0 Provide for an independent review and assessment of the network and its functioning

8.1 Establish criteria of a learner responsive instructional system.

8.2 Solicit proposals for evaluation by R. F. P.

8.3 Award contract

8.4 Review findings as presented in final report